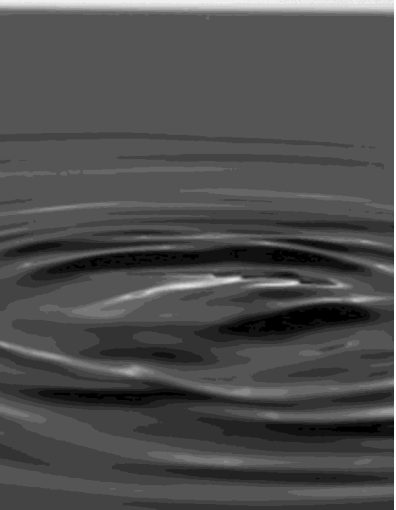
SONY

3-075-802-**31**(1)

CD/DVD Player

Operating Instructions



DVP-NS905V

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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
Power cord (mains lead) must only be changed at a qualified service shop.

CAUTION

The use of optical instruments with this product will increase eye hazard. As the laser beam used in this CD/DVD player is harmful to eyes, do not attempt to disassemble the cabinet.
Refer servicing to qualified personnel only.

Precautions

Safety

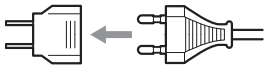
- This unit operates on 220 - 240 V AC, 50/60 Hz. Check that the unit's operating voltage is identical with your local power supply.
- To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Installing

- Do not install the unit in an inclined position. It is designed to be operated in a horizontal position only.
- Keep the unit and discs away from equipment with strong magnets, such as microwave ovens, or large loudspeakers.
- Do not place heavy objects on the unit.

For the model supplied with the AC plug adaptor

If the AC plug of your unit does not fit into the wall outlet, attach the supplied AC plug adaptor.



Welcome!

Thank you for purchasing this Sony CD/DVD Player. Before operating this player, please read this manual thoroughly and retain it for future reference.

Precautions

On safety

- Caution – The use of optical instruments with this product will increase eye hazard.
- Should any solid object or liquid fall into the cabinet, unplug the player and have it checked by qualified personnel before operating it any further.

On power sources

- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the player itself has been turned off.
- If you are not going to use the player for a long time, be sure to disconnect the player from the wall outlet. To disconnect the AC power cord (mains lead), grasp the plug itself; never pull the cord.

On placement

- Place the player in a location with adequate ventilation to prevent heat build-up in the player.
- Do not place the player on a soft surface such as a rug that might block the ventilation holes on the bottom.
- Do not place the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.

On operation

- If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the player. Should this occur, the player may not operate properly. In this case, remove the disc and leave the player turned on for about half an hour until the moisture evaporates.
- When you move the player, take out any discs. If you don't, the disc may be damaged.

On adjusting volume

Do not turn up the volume while listening to a section with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level section is played.

On cleaning

Clean the cabinet, panel, and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

On cleaning discs

Do not use a commercially available cleaning disc. It may cause a malfunction.

IMPORTANT NOTICE

Caution: This player is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are especially susceptible to this.

If you have any questions or problems concerning your player, please consult your nearest Sony dealer.

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About This Manual

- Instructions in this manual describe the controls on the remote. You can also use the controls on the player if they have the same or similar names as those on the remote.
- "DVD" may be used as a general term for DVD VIDEOs, DVD-Rs, and DVD-RWs.
- The meanings of the icons used in this manual are described below:

Icon	Meaning
DVD-V	Functions available for DVD VIDEOs or DVD-Rs/DVD-RWs in video mode
DVD-RW	Functions available for DVD-RWs in VR (Video Recording) mode
VCD	Functions available for VIDEO CDs or CD-Rs/CD-RWs in video CD format
SA-CD	Functions available for Super Audio CDs
CD	Functions available for music CDs or CD-Rs/CD-RWs in music CD format
DATA CD	Functions available for DATA CDs (CD-ROMs/CD-Rs/CD-RWs containing MP3* audio tracks)

* MP3 (MPEG 1 Audio Layer 3) is a standard format defined by ISO/MPEG which compresses audio data.

This Player Can Play the Following Discs

Format of discs	
DVD VIDEO (page 83)	DVD VIDEO
DVD-RW (page 83)	DVD RW
Super Audio CD (page 84)	SUPER AUDIO CD
VIDEO CD	COMPACT disc DIGITAL VIDEO
Music CD	COMPACT disc DIGITAL AUDIO

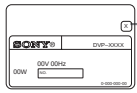
"DVD VIDEO" and "DVD-RW" are trademarks.

Region code

Your player has a region code printed on the back of the unit and only will play DVD VIDEO discs (playback only) labelled with identical region codes. This system is used to protect copyrights.

DVD VIDEOs labelled ALL will also play on this player.

If you try to play any other DVD VIDEO, the message "Playback prohibited by area limitations." will appear on the TV screen. Depending on the DVD VIDEO, no region code indication may be labelled even though playing the DVD VIDEO is prohibited by area restrictions.



Example of discs that the player cannot play

The player cannot play the following discs:

- All CD-ROMs (including PHOTO CDs)/ CD-Rs/CD-RWs other than those recorded in the following formats:
  –music CD format
  –video CD format
  –MP3 format that conforms to ISO9660* Level 1/Level 2, or its extended format, Joliet
- Data part of CD-Extras
- DVD-ROMs
- DVD Audio discs

* A logical format of files and folders on CD-ROMs defined by ISO (International Standard Organization)

Also, the player cannot play the following discs:

- A DVD VIDEO with a different region code.
- A disc that has a non-standard shape (e.g., card, heart).
- A disc with paper or stickers on it.
- A disc that has the adhesive of cellophane tape or a sticker still left on it.

Note

Some DVD-Rs, DVD-RWs, CD-Rs, or CD-RWs cannot be played on this player due to the recording quality or physical condition of the disc, or the characteristics of the recording device.
The disc will not play if it has not been correctly finalized. Also, images in DVD-RW discs with CPRM* protection may not be played if they contain a copy protection signal. “Copyright lock” appears on the screen. For more information, see the operating instructions for the recording device.
Note that discs created in the Packet Write format cannot be played.

* CPRM (Content Protection for Recordable Media) is a coding technology that protects the copyright of images.

Note on playback operations of DVDs and VIDEO CDs

Some playback operations of DVDs and VIDEO CDs may be intentionally set by software producers. Since this player plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the DVDs or VIDEO CDs.

Copyrights

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents, other intellectual property rights owned by Macrovision Corporation, and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Notes About the Discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.

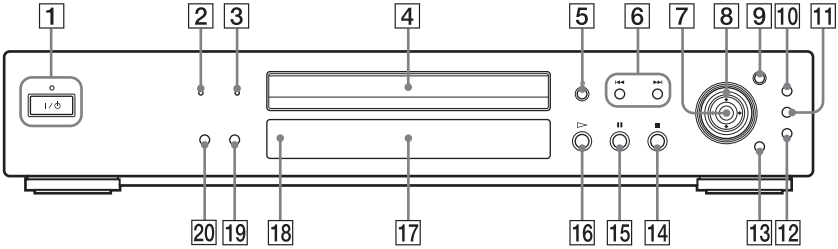
- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight as the temperature may rise considerably inside the car.
- After playing, store the disc in its case.
- Clean the disc with a cleaning cloth. Wipe the disc from the centre out.

- Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for vinyl LPs.

Index to Parts and Controls

For more information, refer to the pages indicated in parentheses.

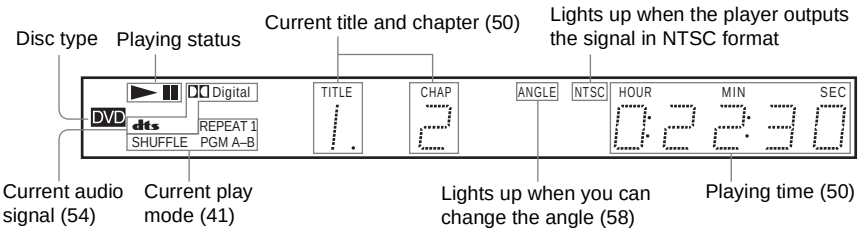
Front panel



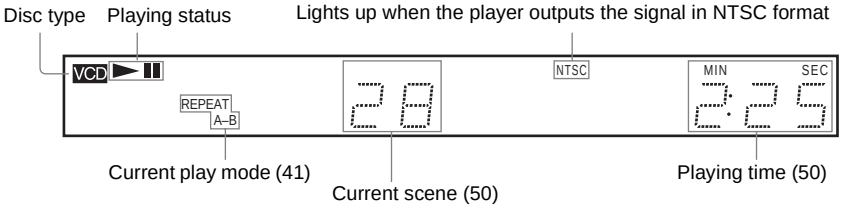
1 I/⏻ (on/standby) button/indicator (31)
Lights up in green when the power is on and lights up in red when the player is in standby mode.
2 SUPER AUDIO CD indicator
Lights up when playing a Super Audio CD.
3 MULTI CHANNEL indicator
Lights up when:
– playing a disc that contains multiple audio signal channels
– the disc is not inserted
4 Disc tray (31)
5 ⏏ (open/close) button (31)
6 ⏮/⏭ (previous/next) buttons (32)
7 ←/↑/↓/→ ENTER buttons (36)
8 Click shuttle (34)
9 JOG button/indicator (34)
10 TOP MENU button (36)
11 MENU button (36) (39)
12 ↩ RETURN button (32)
13 DISPLAY button (12)
14 ■ (stop) button (32)
15 ⏸ (pause) button (32)
16 ▷ (play) button (31)
17 Front panel display (9)
18 (remote sensor) (15)
19 SURROUND button (55)
20 PICTURE MODE button (60)

Front panel display

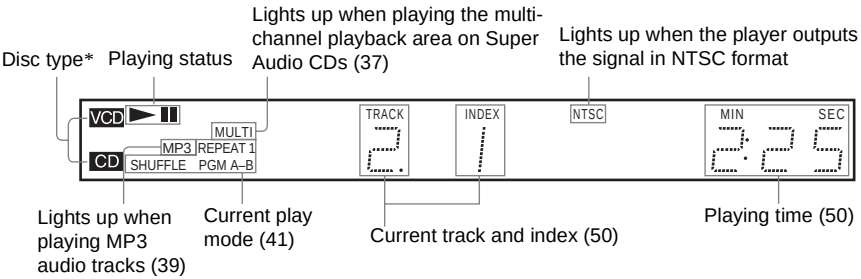
When playing back a DVD VIDEO/DVD-RW



When playing back a VIDEO CD with Playback Control (PBC) (38)



When playing back a Super Audio CD, CD, DATA CD (MP3 audio), or VIDEO CD (without PBC)



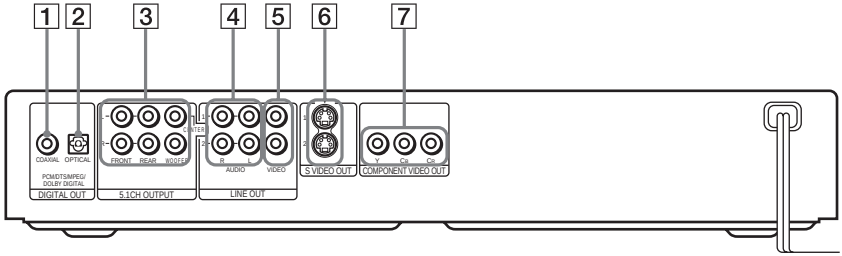
* When playing the HD layer of Super Audio CD discs, the disc type is not displayed.

Hint

You can turn off the front panel display by setting "DIMMER" in "CUSTOM SETUP" to "OFF" (page 73).

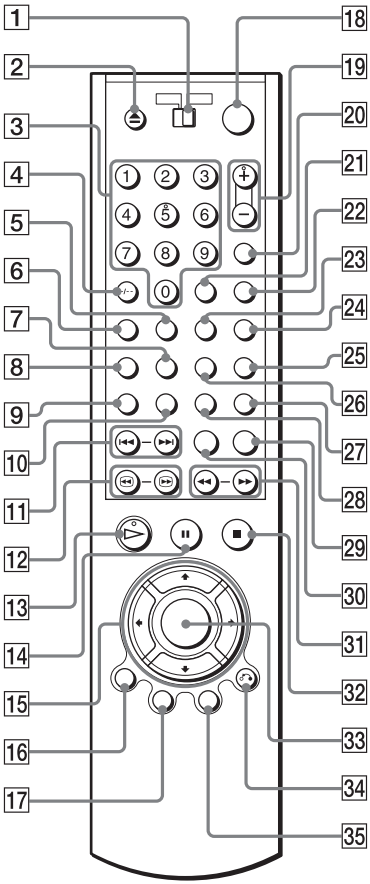
➡*continued*

Rear panel



1 DIGITAL OUT (COAXIAL) jack (23) (24) (25)
2 DIGITAL OUT (OPTICAL) jack (23) (24) (25)
3 5.1CH OUTPUT jacks (25)
4 LINE OUT L/R (AUDIO) 1/2 jacks (22) (23) (24)
5 LINE OUT (VIDEO) 1/2 jacks (18)
6 S VIDEO OUT 1/2 jacks (18)
7 COMPONENT VIDEO OUT jacks (18)

Remote



1 TV/DVD switch (68)
2 ⏏ OPEN/CLOSE button (32)
3 Number buttons (36)
The number 5 button has a tactile dot.*
4 CLEAR /-/-- (ten's digit) button (41) (68)
5 SACD (Super Audio CD)/CD button (38)
6 SACD (Super Audio CD) MULTI/2CH button (37)
7 SUBTITLE button (58)
8 AUDIO button (53)
9 TIME/TEXT button (49)
10 REPEAT button (44)
11 ⏮/⏭ PREV(previous)/NEXT buttons (32)
12 ◀◀/▶▶ SEARCH/STEP buttons (33)
13 ▷ PLAY button (31)
The ▷ button has a tactile dot.*
14 ❚❚ PAUSE button (32)
15 ←/↑/↓/→ buttons (36)
16 DISPLAY button (12)
17 TOP MENU button (36)
18 I/⏻ (on/standby) button (31)
19 VOL (volume) +/– buttons (68)
The + button has a tactile dot.*
20 TV/VIDEO button (68)
21 ENTER button (performs the same function as 33)
22 WIDE MODE button (68)
23 SHUFFLE button (43)
24 A-B button (44)
25 PICTURE NAVI (navigation) button (47)
26 ANGLE button (58)
27 PICTURE MODE button (60)
28 SUR (surround) button (55)
29 REPLAY button (32)
30 SEARCH MODE button (46)
31 ◀❙ ◀◀/▶▶ ❙▶ SCAN/SLOW buttons (33)
32 ■ STOP button (32)
33 ENTER button (27)
34 ↩ RETURN button (32)
35 MENU button (36) (39)

* Use the tactile dot as a reference when operating the player.

Guide to the Control Menu Display

Use the Control Menu to select a function and to view related information. Press DISPLAY repeatedly to turn on or change the Control Menu display as follows:

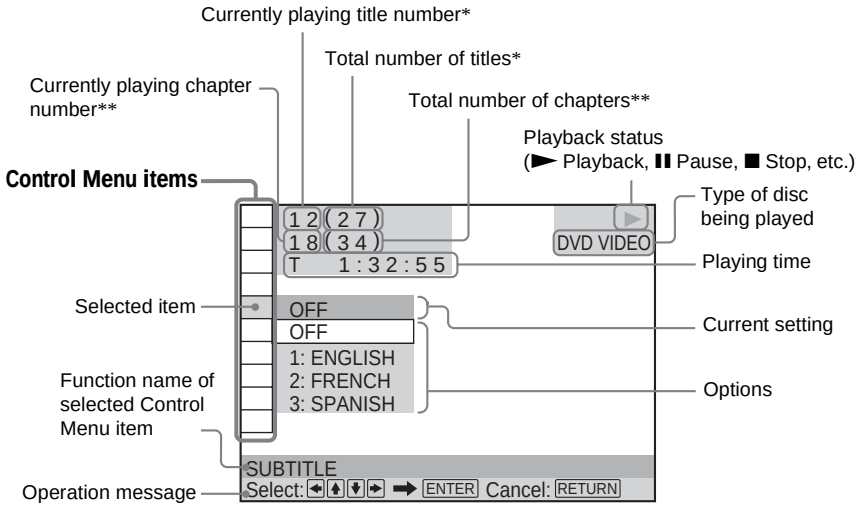
Control Menu display 1
↓
Control Menu display 2 (DVD/VIDEO CD only)
↓
ADVANCED display (DVD only. See page 51.)
↓
Control Menu display off

Hint
You can skip the ADVANCED display by setting "OFF" under "ADVANCED" in the Control Menu (page 51).

Control Menu Display

The Control Menu display 1 and 2 will show different items depending on the disc type. For details about each item, please refer to the pages in the parentheses.

Example: Control Menu display 1 when playing a DVD VIDEO.



* Displays the scene number for VIDEO CDs (PBC is on), track number for VIDEO CDs/ Super Audio CDs/CDs, album number for DATA CDs.

** Displays the index number for VIDEO CDs/ Super Audio CDs/CDs, MP3 audio track number for DATA CDs.

List of Control Menu items

Item	Item Name, Function, Relevant Disc Type
	TITLE (page 46)/SCENE (page 46)/TRACK (page 46) Selects the title, scene, or track to be played. DVD-V DVD-RW VCD
	CHAPTER (page 46)/INDEX (page 46) Selects the chapter or index to be played. DVD-V DVD-RW VCD
	ALBUM (page 39) Selects the album to be played. DATA CD
	TRACK (page 46) Selects the track to be played. SA-CD CD DATA CD
	INDEX (page 46) Selects the index to be played. SA-CD CD
	ORIGINAL/PLAY LIST (page 36) Selects the type of titles (DVD-RW) to be played, the ORIGINAL one, or an edited PLAY LIST. DVD-RW
	TIME/TEXT (page 46) Checks the elapsed time and the remaining playback time. Input the time code for picture and music searching. Displays the DVD/Super Audio CD/CD text or the DATA CD's track name. DVD-V DVD-RW VCD SA-CD CD DATA CD
	MULTI/2CH (page 37) Selects the playback area on Super Audio CDs when available. SA-CD
	AUDIO (page 53) Changes the audio setting. DVD-V DVD-RW VCD CD DATA CD
	SUBTITLE (page 58) Displays the subtitles. Changes the subtitle language. DVD-V DVD-RW
	ANGLE (page 58) Changes the angle. DVD-V
	SURROUND (page 55) Selects the surround functions. DVD-V DVD-RW VCD CD DATA CD
	ADVANCED (page 51) Displays the information (bit rate or layer) of the disc currently playing. DVD-V DVD-RW
	PARENTAL CONTROL (page 63) Sets to prohibit playback on this player. DVD-V VCD SA-CD CD

➡*continued*

	SETUP (page 70) QUICK Setup (page 27) Use Quick Setup to choose the desired language of the on-screen display,the aspect ratio of the TV, the audio output signal, and the size of the speakers you are connecting. CUSTOM Setup In addition to the Quick Setup setting, you can adjust various other settings. RESET Returns the settings in “SETUP” to the default setting. DVD-V DVD-RW VCD SA-CD CD DATA CD
	PROGRAM (page 41) Selects the title, chapter, or track to play in the order you want. DVD-V VCD SA-CD CD
	SHUFFLE (page 43) Plays the title, chapter, or track in random order. DVD-V VCD SA-CD CD
	REPEAT (page 44) Plays the entire disc (all titles/all tracks/all albums) repeatedly or one title/chapter/track/album repeatedly. DVD-V DVD-RW VCD SA-CD CD DATA CD
	A-B REPEAT (page 44) Specifies the parts you want to play repeatedly. DVD-V DVD-RW VCD SA-CD CD
	BNR (page 59) Adjusts the picture quality by reducing the “block noise” or mosaic like patterns that appear on your TV screen. DVD-V DVD-RW VCD
	CUSTOM PICTURE MODE (page 60) Adjusts the video signal from the player. You can select the picture quality that best suits the programme you are watching. DVD-V DVD-RW VCD
	DIGITAL VIDEO ENHANCER (page 62) Exaggerates the outline of the image to produce a sharper picture. DVD-V DVD-RW VCD
	PICTURE NAVIGATION (page 47) Divides the screen into 9 subscreens to help you find the scene you want quickly. DVD-V VCD

Hint

The Control Menu icon indicator lights up in green when you select any item except “OFF.” (“SURROUND,” “PROGRAM,” “SHUFFLE,” “REPEAT,” “A-B REPEAT,” “BNR,” “DIGITAL VIDEO ENHANCER” only). The “ANGLE” indicator lights up in green only when the angles can be changed. The “CUSTOM PICTURE MODE” indicator lights up in green when any setting other than “STANDARD” is selected.

Quick Overview

A quick overview presented in this guide will give you enough information to start using the player for your enjoyment. To use the surround sound features of this player, refer to “Hookups” on page 18.

Notes

- You cannot connect this player to a TV that does not have a video input jack.
- Be sure to disconnect the power cord (mains lead) of each component before connecting.

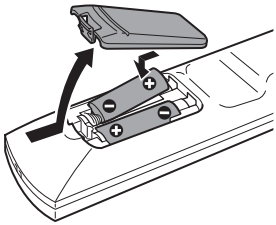
Step 1: Unpacking

Check that you have the following items:

- Audio/video cord (pinplug × 3 ⟷ pinplug × 3) (1)
- Remote commander (remote) (1)
- Size R6 (AA) batteries (2)
- A plug adaptor is included with some models.

Step 2: Inserting Batteries Into the Remote

You can control the player using the supplied remote. Insert two size R6 (AA) batteries by matching the ⊕ and ⊖ ends on the batteries to the markings inside the compartment. When using the remote, point it at the remote sensor ▣ on the player.

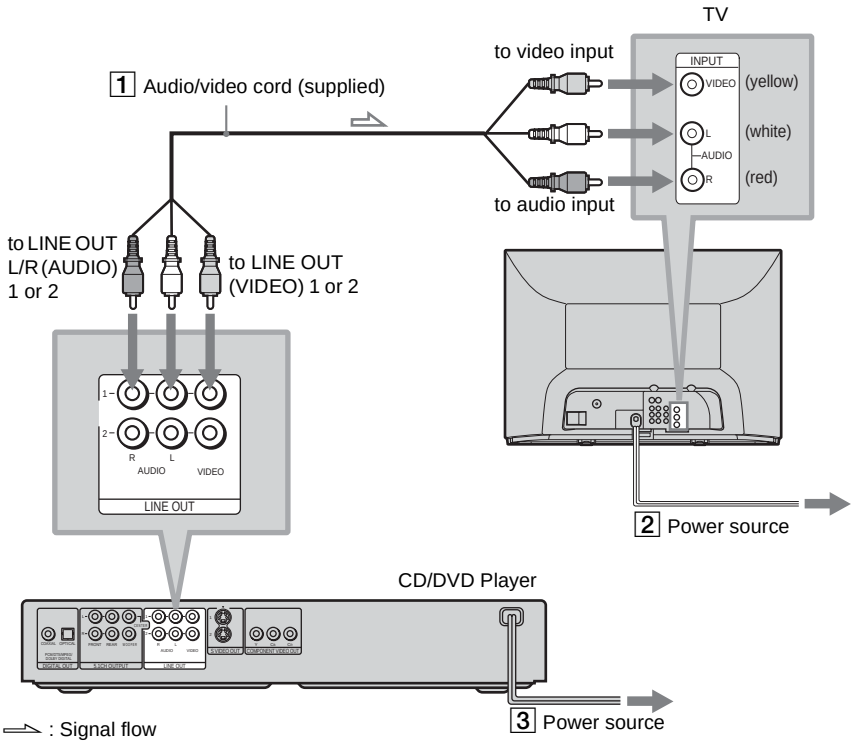


Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not expose the remote sensor to direct light from the sun or a lighting apparatus. Doing so may cause a malfunction.
- If you do not use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Step 3: TV Hookups

Connect the supplied audio/video cord and power cord (mains lead) in the order (1~3) shown below. Be sure to connect the power cord (mains lead) last.



When connecting to a standard 4:3 screen TV

Depending on the disc, the image may not fit your TV screen. If you want to change the aspect ratio, refer to page 72.

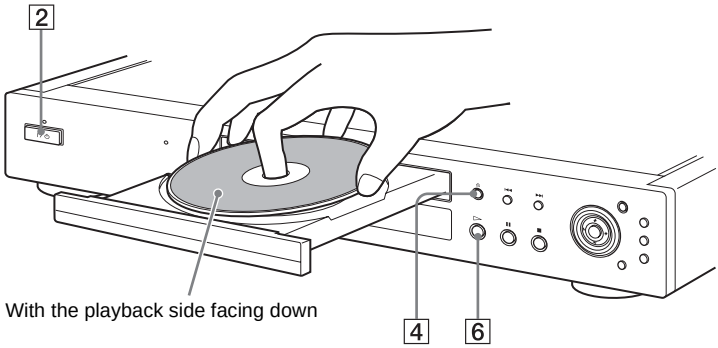
To change the colour system

The colour system of the player is set to NTSC or PAL. If the on-screen display of the player does not appear on the TV, change the colour system of the player (PAL or NTSC) so that a picture appears on your TV. To change the colour system, hold ⏻ down for a few seconds while pressing ⏸ on the player.

Hints

- To check the current setting of the player's colour system, press ⏻ on the player or remote. The power indicator lights up in green. When "NTSC" appears on the front panel display, the colour system of the player is set to NTSC. When "NTSC" does not appear, the colour system is set to PAL.
- When connecting to a monaural TV, use a stereo-mono conversion cord (not supplied). Connect the LINE OUT (VIDEO) 1/2 jacks on the player to the TV's video input jacks, and connect the LINE OUT L/R (AUDIO) 1/2 jacks to the TV's audio input jack.

Step 4: Playing a Disc



1 Turn on the TV.

2 Press I/⏻ on the player.

3 Switch the input selector on your TV so that the signal from the player appears on the TV screen.

4 Press ⏏ on the player to open the disc tray.

5 Place the disc on the tray with the playback side facing down.

6 Press ▷.

The disc tray closes and the player begins playing the disc.

After step 6

Depending on the disc, a menu may be displayed on the TV screen. If so, select the item you want from the menu and play the DVD VIDEO (page 36) or VIDEO CD disc (page 38).

To stop playing

Press ■.

To remove the disc

Press ⏏.

To turn off the player

Press I/⏻. The player enters standby mode and the power indicator lights up in red.

Hooking Up the Player

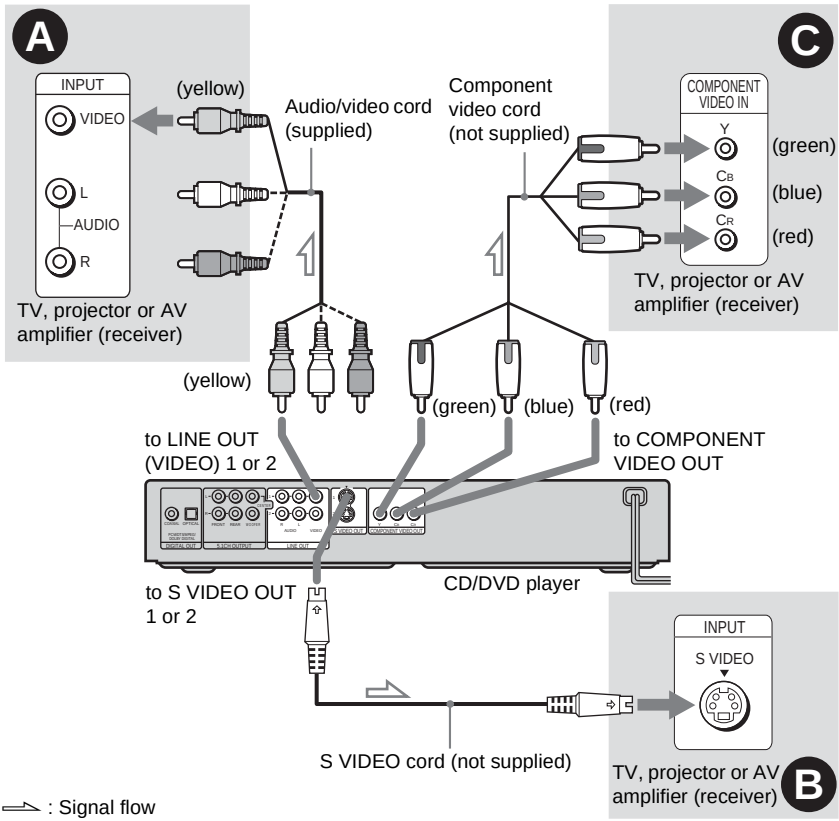
Follow steps 1 to 4 to hook up and adjust the settings of the player.
Before you start, disconnect the power cords (mains leads), check that you have all of the supplied accessories, and insert the batteries into the remote (page 15).

Notes

- Plug cords securely to prevent unwanted noise.
- Refer to the instructions supplied with the components to be connected.

Step 1: Connecting the Video Cords

Connect this player to your TV monitor, projector, or AV amplifier (receiver) using a video cord. Select one of the patterns A through C, according to the input jack on your TV monitor, projector, or AV amplifier (receiver).



: Signal flow

Ⓐ If you are connecting to a video input jack

Connect the yellow plug of the audio/video cord (supplied) to the yellow (video) jacks. You will enjoy standard quality images.

Use the red and white plugs to connect to the audio input jacks (page 22). (Do this if you are connecting to a TV only.)

Ⓑ If you are connecting to an S VIDEO input jack

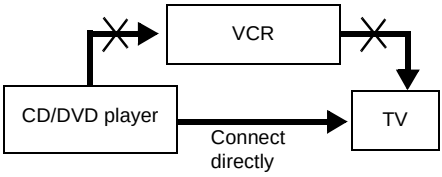
Connect an S VIDEO cord (not supplied). You will enjoy high quality images.

Ⓒ If you are connecting to a monitor, projector, or AV amplifier (receiver) having component video input jacks (Y, CB, CR)

Connect the component via the COMPONENT VIDEO OUT jacks using a component video cord (not supplied) or three video cords (not supplied) of the same kind and length. You will enjoy accurate colour reproduction and high quality images.

Notes

- You can switch the player's colour system to match the colour system of the connected TV (page 16).
- Do not connect a VCR, etc. between your TV and the player. If you pass the player signals via the VCR, you may not receive a clear image on the TV screen. If your TV has only one audio/video input jack, connect the player to this jack.

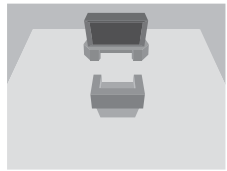
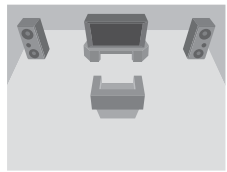
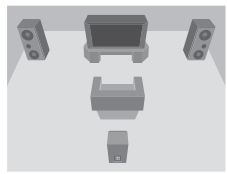
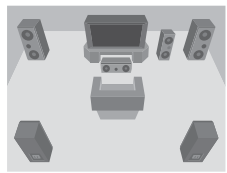


Step 2: Connecting the Audio Cords

Refer to the chart below to select the connection that best suits your system. Be sure to also read the instructions for the components you wish to connect.

Select a connection

Select one of the following connections, A through D.

Components to be connected	Connection	Your setup (example)
TV • Surround effects: TVS DYNAMIC (page 55), TVS WIDE (page 55)	A (page 22)	
Stereo amplifier (receiver) and two speakers • Surround effects: TVS STANDARD (page 56) or **MD deck/DAT deck** • Surround effects: TVS STANDARD (page 56)	B (page 23)	
AV amplifier (receiver) having a Dolby* Surround (Pro Logic) decoder and 3 to 6 speakers • Surround effects: Dolby Surround (Pro Logic) (page 83)	C (page 24)	
AV amplifier (receiver) with 5.1 ch input jacks and 4 to 6 speakers • Surround effects: – Dolby Digital (5.1 ch) (page 83) – DTS (5.1 ch) (page 83) – Super Audio CD Multi channel (page 84) – MPEG audio (5.1 ch) (page 84) or **AV amplifier (receiver) with digital input jacks having a Dolby, DTS**, or MPEG audio decoder and 6 speakers** • Surround effects: – Dolby Digital (5.1 ch) (page 83) – DTS (5.1 ch) (page 83) – MPEG audio (5.1 ch) (page 84)	D (page 25)	

Hint

If you connect an AV amplifier (receiver) that conforms to the 96 kHz sampling frequency, use connection D.

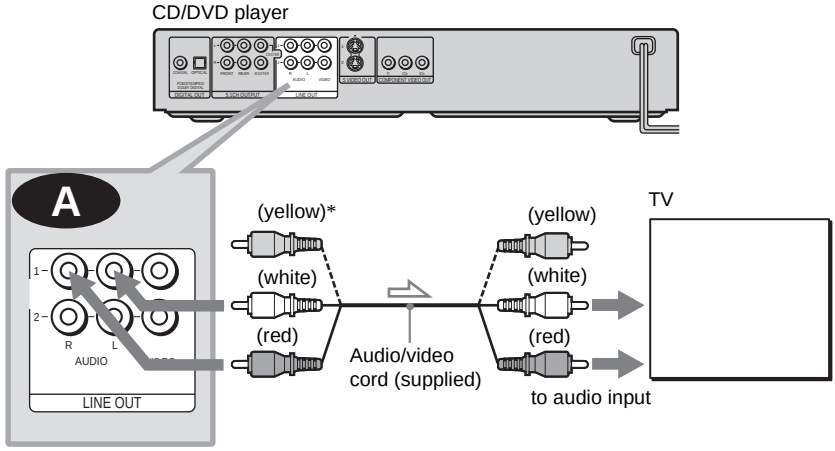
* Manufactured under license from Dolby Laboratories. “Dolby,” “Pro Logic,” and the double-D symbol are trademarks of Dolby Laboratories.

** Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942, 5,956,674, 5,974,380, 5,978,762 and other world-wide patents issues and pending. “DTS” and “DTS Digital Surround” are registered trademarks of Digital Theater Systems, Inc. Copyright 1996, 2000 Digital Theater Systems, Inc. All rights reserved.

➡*continued*

A Connecting to your TV

This connection will use your TV speakers for sound.



to LINE OUT L/R (AUDIO) 1 or 2

: Signal flow

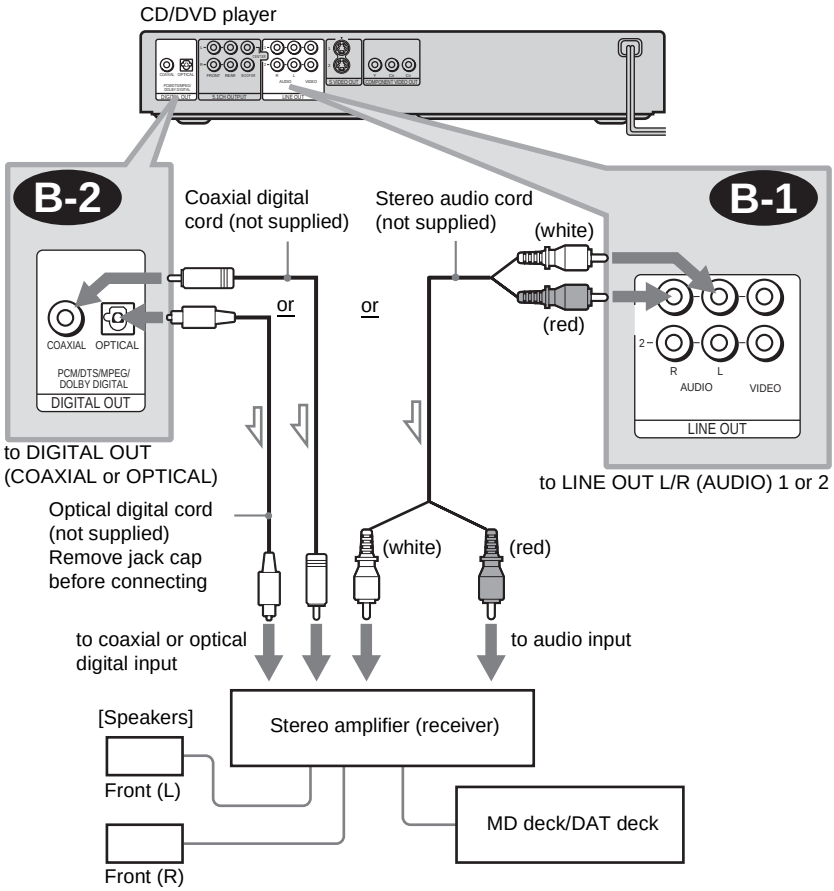
* The yellow plug is used for video signals (page 18).

Hint

When connecting to a monaural TV, use a stereo-mono conversion cord (not supplied). Connect the LINE OUT L/R (AUDIO) 1/2 jacks to the TV's audio input jack.

B Connecting to a stereo amplifier (receiver) and 2 speakers/Connecting to an MD deck or DAT deck

If the stereo amplifier (receiver) has audio input jacks L and R only, use B-1. If the amplifier (receiver) has a digital input jack, or when connecting to an MD deck or DAT deck, use B-2. In this case, you can also connect the player directly to the MD deck or DAT deck without using your stereo amplifier (receiver).



: Signal flow

Hints

- In connection B-1, you can use the supplied audio/video cord instead of using a separate stereo audio cord.
- To realize better surround sound effects, make sure that your listening position is in between your speakers.

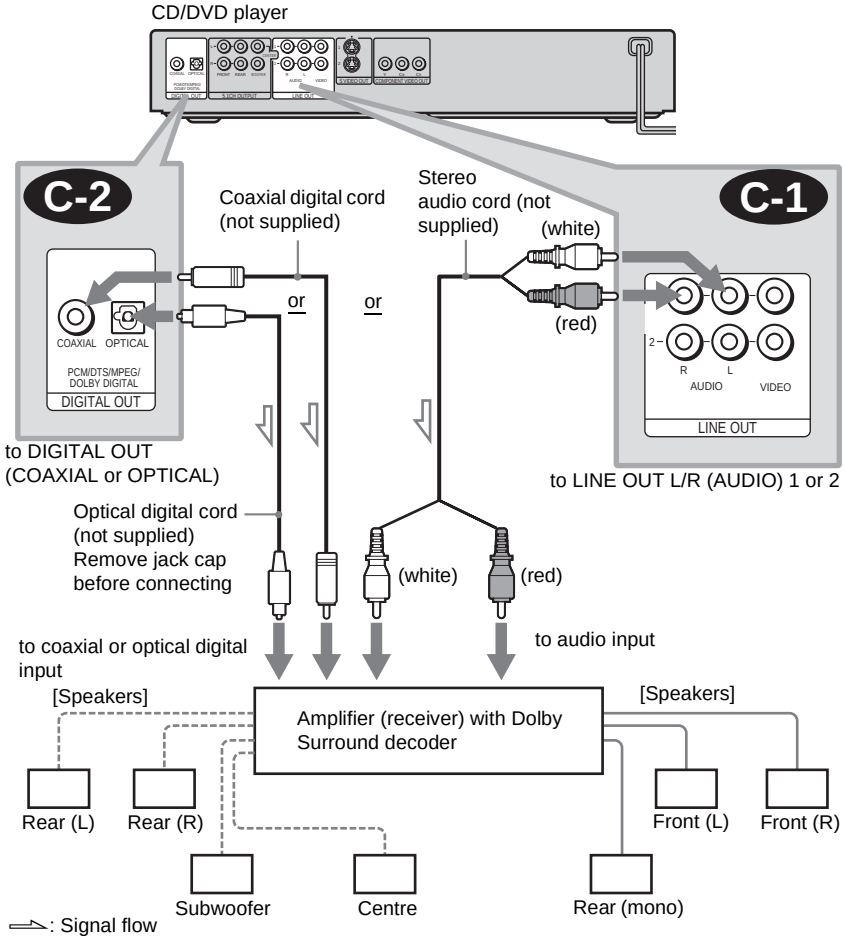
Note

Super Audio CD audio signals are not output from the digital jack.

➡continued

C Connecting to an AV amplifier (receiver) having a Dolby Surround (Pro Logic) decoder and 3 to 6 speakers

You can enjoy the Dolby Surround effects only when playing Dolby Surround audio or multi-channel audio (Dolby Digital) discs.
If your amplifier (receiver) has L and R audio input jacks only, use C-1. If your amplifier (receiver) has a digital input jack, use C-2.



Hint

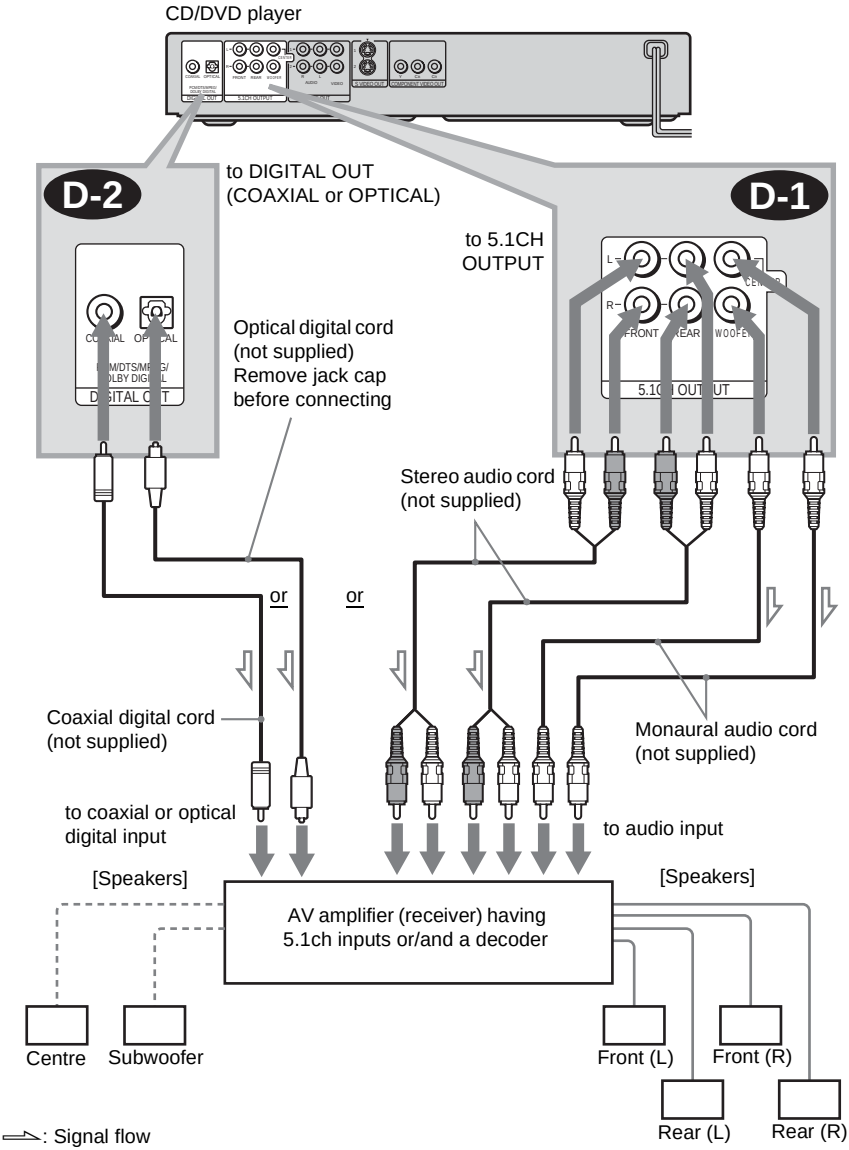
For correct speaker location, refer to the operating instructions of the amplifier (receiver).

Notes

- When connecting 6 speakers, replace the monaural rear speaker with a centre speaker, 2 rear speakers and a subwoofer.
- Super Audio CD audio signals are not output from the digital jack.

D Connecting to an AV amplifier (receiver) with 5.1 ch input jacks and/or a digital input jack and 4 to 6 speakers

If your AV amplifier (receiver) has 5.1 channel inputs, use D-1.
If you want to use the Dolby Digital, MPEG audio, or DTS decoder function on your AV amplifier (receiver), connect to its digital jack using D-2. With the following connections, you can enjoy a more realistic audio presence in the comfort of your own home.



➡continued

D-1 : Connecting to the 5.1ch input jacks

You can enjoy 5.1ch surround sound using the internal Dolby Digital, MPEG audio, DTS, or Super Audio CD Multi decoder of this player. (When 6 speakers are connected, set “SURROUND” to “OFF.”)
You can also enjoy Dolby Surround (Pro Logic) sounds, or surround sounds using various “SURROUND” modes (page 55).

D-2 : Connecting to a digital jack

This connection will allow you to use the Dolby Digital, MPEG audio, or DTS decoder function of your AV amplifier (receiver). You are not able to enjoy the surround sound effects of this player.

Hints

- **For connection D-2**
  For correct speaker location, refer to the operating instructions of the connected components.
- To enhance the sound performance:

– Use high-performance speakers.
– Use front, rear, and centre speakers of the same size and performance.
– Place the subwoofer between the left and right front speakers.

Notes

For connection D-2

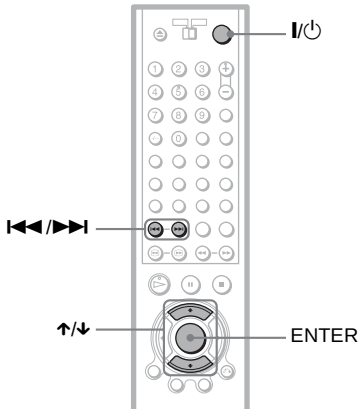
- After you have completed the connection, be sure to set “DOLBY DIGITAL” to “DOLBY DIGITAL” and “DTS” to “DTS” in Quick Setup (page 27). If your AV amplifier (receiver) has an MPEG audio decoder function, set “MPEG” in “AUDIO SETUP” to “MPEG” (page 76). Otherwise, no sound or a loud noise will come from the speakers.
- When you connect an amplifier (receiver) that conforms to the 96kHz sampling frequency, set “48kHz/96kHz PCM” in “AUDIO SETUP” to “96kHz/24bit” (page 76).
- Super Audio CD audio signals are not output from the digital jack.

Step 3: Connecting the Power Cord

Plug the player and TV power cord (mains lead) into an AC outlet (mains).

Step 4: Quick Setup

Follow the steps below to make the minimum number of basic adjustments for using the player. To skip an adjustment, press ▶▶I. To return to the previous adjustment, press I◀◀.



1 **Turn on the TV.**

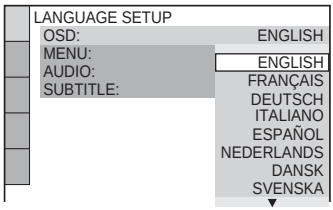
2 **Press I/⏻.**

3 **Switch the input selector on your TV so that the signal from the player appears on the TV screen.**

"Press [ENTER] to run QUICK SETUP" appears at the bottom of the screen. If this message does not appear, select "QUICK" under "SETUP" in the Control Menu to run Quick Setup (page 71).

4 **Press ENTER without inserting a disc.**

The Setup Display for selecting the language used in the on-screen display appears.
The available languages differ depending upon the player model.



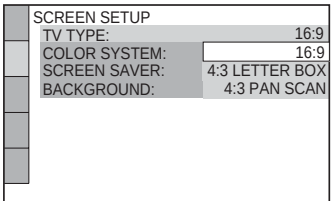
5 **Press ↑/↓ to select a language.**

The player uses the language selected here to display the menu and subtitles as well.

6 **Press ENTER.**

The Setup Display for selecting the aspect ratio of the TV to be connected appears.

➡*continued*



7 Press ↑/↓ to select the setting that matches your TV type.

◆ If you have a wide-screen TV or a 4:3 standard TV with a wide-screen mode

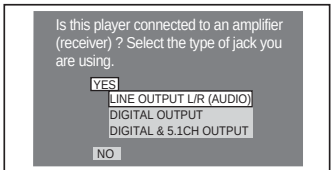
• 16:9 (page 72)

◆ If you have a 4:3 standard TV

• 4:3 LETTER BOX or 4:3 PAN SCAN (page 72)

8 Press ENTER.

The Setup Display for selecting the type of jack used to connect your amplifier (receiver) appears.


Is this player connected to an amplifier (receiver) ? Select the type of jack you are using.
YES
LINE OUTPUT L/R (AUDIO)
DIGITAL OUTPUT
DIGITAL & 5.1CH OUTPUT
NO

9 Press ↑/↓ to select the type of jack (if any) you are using to connect to an amplifier (receiver), then press ENTER.

Choose the item that matches the audio connection you selected on pages 22 to 25 (A through D).

A

• If you connect just a TV and nothing else, select "NO." Quick Setup is finished and connections are complete.

B-1 C-1

• Select "LINE OUTPUT L/R (AUDIO)." Quick Setup is finished and connections are complete.

B-2 C-2 D-2

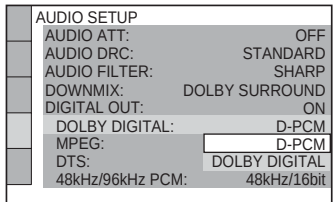
• Select "DIGITAL OUTPUT." The Setup Display for "DOLBY DIGITAL" appears.

D-1 or both D-1 and D-2

• Select "DIGITAL & 5.1CH OUTPUT." The Setup Display for "DOLBY DIGITAL"appears.

10 Press ↑/↓ to select the type of Dolby Digital signal you wish to send to your amplifier (receiver).

Choose the signal that matches the audio connection you selected on pages 23 to 25 (B through D).



B-2 C-2

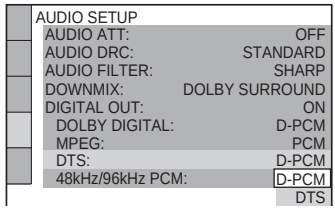
• D-PCM (page 76)

D-2

• DOLBY DIGITAL (only if the amplifier (receiver) has a Dolby Digital decoder) (page 76)

11 Press ENTER.

"DTS" is selected.



12 Press ↑/↓ to select the type of DTS signal sent to your amplifier (receiver).

Choose the item that matches the audio connection you selected on pages 23 to 25 (B through D).

B-2 C-2

• D-PCM (page 76)

D-2

• DTS (page 76)

13 Press ENTER.

◆ When "DIGITAL OUTPUT" is selected in Step 9

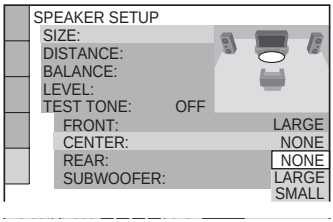
- Quick Setup is finished and connections are complete.
- If your AV amplifier (receiver) has an MPEG audio decoder, set "MPEG" to "MPEG" (page 76).

◆ When "DIGITAL & 5.1CH OUTPUT" is selected in Step 9

- The Setup Display for "SPEAKER SETUP" appears.

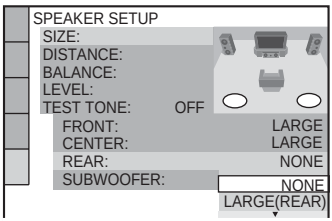
14 Press ↑/↓ to select the size of the centre speaker.

If no centre speaker is connected, select "NONE" (page 77).



15 Press ENTER.

"REAR" is selected.

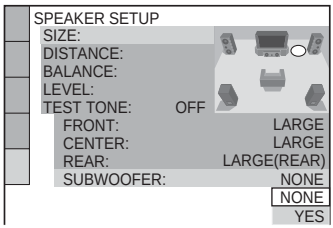


16 Press ↑/↓ to select the size of the rear speakers.

If no rear speaker is connected, select "NONE."
"SIDE" and "REAR" refer to the speaker position relative to your listening position (page 77).

17 Press ENTER.

"SUBWOOFER" is selected.



18 Press ↑/↓ to select whether or not you have connected a subwoofer.

19 Press ENTER.

Quick Setup is finished. All connections and setup operations are complete.

Enjoying the surround sound effects

To enjoy the surround sound effects of this player or your amplifier (receiver), set the following items as described below for the audio connection you selected on pages 23 to 25 (B through D). Each of these is the default setting and does not need to be adjusted when you first connect the player. Refer to page 70 for using the Setup Display.

Audio Connection (pages 22 to 25)

A

- No additional settings are needed.

B-1 C-1

- Set "DOWNMIX" to "DOLBY SURROUND" (page 75).
- If the sound distorts even when the volume is turned down, set "AUDIO ATT" to "ON" (page 75).

B-2 C-2 D-2

- Set "DOWNMIX" to "DOLBY SURROUND" (page 75).
- Set "DIGITAL OUT" to "ON" (page 75).
- Set "48kHz/96kHz PCM" to "96kHz/24bit," only if you connect an amplifier (receiver) that conforms to the 96 kHz sampling frequency (page 76).

➡continued

D-1

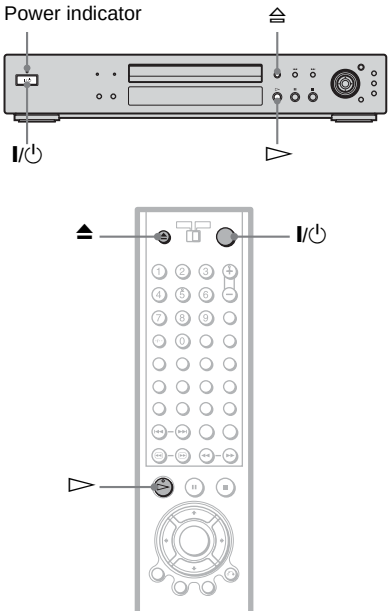
- Set “DISTANCE,” “BALANCE,” and “LEVEL” according to the connected speakers (page 78).
- If the sound distorts even when the volume is turned down, set “AUDIO ATT” to “ON” (page 75).

Playing Discs DVD-V

DVD-RW VCD SA-CD CD

DATA CD

Depending on the DVD or VIDEO CD, some operations may be different or restricted. Refer to the operating instructions supplied with your disc.



1 Turn on your TV.

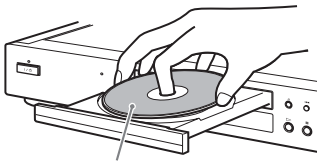
2 Press I/⏻.

The player turns on and the power indicator lights up in green.

3 Switch the input selector on your TV so that the signal from the player appears on the TV screen.

◆ **When using an amplifier (receiver)**
Turn on the amplifier (receiver) and select the appropriate channel so that you can hear sound from the player.

4 Press ⏏ on the player, and place a disc on the disc tray.



With the playback side facing down

5 Press ▷.

The disc tray closes, and the player starts playback (continuous play). Adjust the volume on the TV or the amplifier (receiver).
Depending on the disc, a menu may appear on the TV screen. For DVD VIDEOs, see page 36. For VIDEO CDs, see page 38.

To turn off the player

Press I/⏻. The player enters standby mode.

Hint

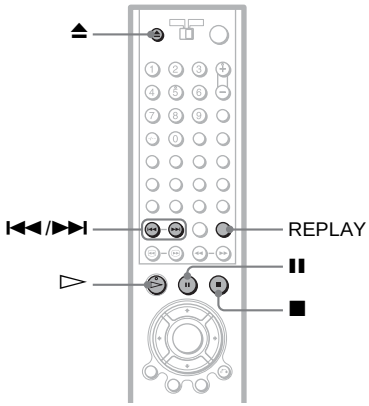
The player will turn off automatically whenever you leave it in stop mode for more than 30 minutes (Auto Power off function).

Note

Super Audio CD audio signals are not output from the digital jack.

➡continued

Additional operations



To	Operation
Stop	Press ■
Pause	Press ❚❚
Resume play after pause	Press ❚❚ or ▷
Go to the next chapter, track, or scene in continuous play mode	Press ⏭
Go back to the previous chapter, track, or scene in continuous play mode	Press ⏮
Stop play and remove the disc	Press ⏏
Replay the previous scene (DVD VIDEO only)	Press REPLAY

Hint

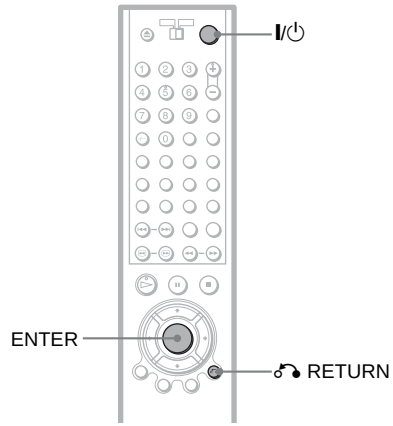
The Replay function is useful when you want to review a scene or dialog that you missed.

Note

You may not be able to use the Replay function with some scenes.

Locking the disc tray (Child Lock)

You can lock the disc tray to prevent children from opening it.



When the player is in standby mode, press RETURN, ENTER, and then I/⏻ on the remote.

The player turns on and "LOCKED" appears on the front panel display.

The ⏏ button on the player or the remote does not work while the Child Lock is set.

To unlock the disc tray

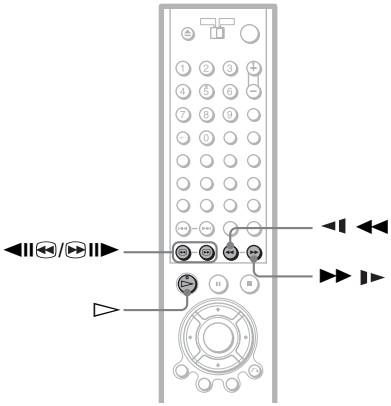
When the player is in standby mode, press RETURN, ENTER, and then I/⏻ again.

Note

Even if you select "RESET" under "SETUP" in the Control Menu (page 71), the disc tray remains locked.

Searching for a Particular Point on a Disc (Search, Scan, Slow-motion Play, Freeze Frame)

You can quickly locate a particular point on a disc by monitoring the picture or playing back slowly.



Note

Depending on the DVD/VIDEO CD, you may not be able to do some of the operations described.

Locating a point quickly (Search)

DVD-V DVD-RW VCD SA-CD CD DATA CD

During playback, keep pressing ▶▶II▶ to locate a point in the playback direction or keep pressing ◀II◀◀ to locate a point in the opposite direction. When you find the point you want, release the button to return to normal playback speed.

Locating a point quickly by playing a disc in fast forward or fast reverse (Scan) DVD-V DVD-RW VCD SA-CD CD DATA CD

Press ◀ ◀◀ or ▶▶ ▶ while playing a disc. When you find the point you want, press ▷ to return to normal speed. Each time you press ◀ ◀◀ or ▶▶ ▶ during scan, the playback speed changes. Three speeds are available. With each press the indication changes as follows:

Playback direction

×2▶ (DVD VIDEO/Super Audio CD/CD only)

2▶▶ ← 1▶▶

Opposite direction

×2◀ (DVD VIDEO only) → 1◀◀ → 2◀◀

The "×2▶"/"×2◀" playback speed is about twice the normal speed. The "2▶▶"/"2◀◀" playback speed is faster than "1▶▶"/"1◀◀."

Watching frame by frame (Slow-motion Play) DVD-V DVD-RW VCD

Press ◀ ◀◀ or ▶▶ ▶ when the player is in pause mode. To return to the normal speed, press ▷.
Each time you press ◀ ◀◀ or ▶▶ ▶ during Slow-motion play, the playback speed changes. Two speeds are available. With each press the indication changes as follows:

Playback direction

2 ▶ ↔ 1 ▶

Opposite direction (DVD only)

2 ◀ ↔ 1 ◀

The "2 ▶"/"2 ◀" playback speed is slower than "1 ▶"/"1 ◀."

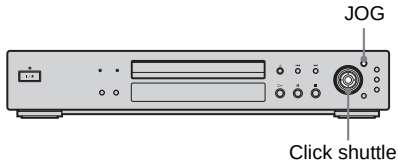
Playing one frame at a time (Freeze Frame) DVD-V DVD-RW VCD

When the player is in the pause mode, press ▶▶II▶ to go to the next frame. Press ◀II◀◀ to go to the preceding frame (DVD only). If you hold the button down, you can view the frames in succession. To return to normal playback, press ▷.

➡continued

Using the click shuttle on the player (Shuttle mode)

DVD-V DVD-RW VCD SA-CD CD DATA CD



Turn the click shuttle on the player. The playback speed changes depending on the turning direction and degree of rotation as follows:

◆During playback

2►► Fast forward (faster than 1►►)
↕
1►► Fast forward
↕
×2► (DVD VIDEO/Super Audio CD/ CD only)
↕
► Play (normal speed)
↕
×2◄ (DVD VIDEO only)
↕
1◄◄ Fast rewind
↕
2◄◄ Fast rewind (faster than 1◄◄)

If you turn the click shuttle quickly, the playback speed goes to "2►►" or "2◄◄" at once.

◆During pause mode (DVD VIDEO, DVD-RW, VIDEO CD only)

1▮► Slow (playback direction)
↕
2▮► Slow (playback direction – slower than 1▮►)
↕
▮▮ Pause
↕
2◄▮ Slow (opposite direction – slower than 1◄▮) (DVD only)
↕
1◄▮ Slow (opposite direction) (DVD only)

To return to Continuous Play

Press ▷.

Playing a disc frame by frame using the click shuttle (Jog mode) DVD-V DVD-RW VCD

1 Press JOG.

The indicator lights up and the player enters pause mode.

2 Turn the click shuttle.

Depending on the turning speed, playback goes to frame-by-frame playback in the direction that the click shuttle is turned. Turn the click shuttle clockwise to go forward, and counterclockwise to rewind (DVD only). If you turn the click shuttle at a constant speed for a while, the playback speed goes to slow or normal.

To return to normal playback

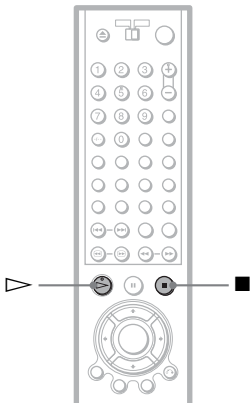
Press ▷.

To turn off the Jog mode

Press JOG again so that the indicator turns off.

Resuming Playback From the Point Where You Stopped the Disc (Multi-disc Resume) DVD-V VCD

The player stores the point where you stopped the disc for up to 40 discs and resumes playback the next time you insert the same disc. When you store a resume playback point for the 41st disc, the resume playback point for the first disc is deleted.



1 While playing a disc, press ■ to stop playback.

"RESUME" appears on the front panel display.

2 Press ▷.

The player starts playback from the point where you stopped the disc in step 1.

Hints

- To play from the beginning of the disc, press ■ twice, then press ▷.
- For DVD-RWs in VR mode, CDs, Super Audio CDs, and DATA CDs, the player remembers the resume playback point for the current disc unless the disc tray is opened, the AC power cord (mains lead) is disconnected, or only for DATA CDs, the player enters standby mode.

Notes

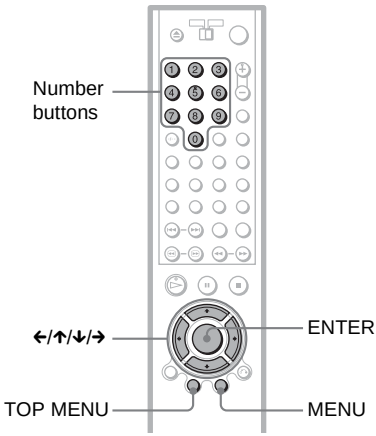
- "MULTI-DISC RESUME" in "CUSTOM SETUP" must be set to "ON" (default) for this function to work (page 74).
- The resume playback point for the current disc is cleared when:

– you change the play mode.
– you change the settings on the Setup Display.

- Resume Play does not work during Shuffle Play and Programme Play.
- This function may not work with some discs.

Using the DVD's Menu DVD-V

A DVD is divided into long sections of a picture or a music feature called "titles." When you play a DVD which contains several titles, you can select the title you want using the TOP MENU button.
When you play DVDs that allow you to select items such as the language for the subtitles and the language for the sound, select these items using the MENU button.



1 Press TOP MENU or MENU.

The disc's menu appears on the TV screen.
The contents of the menu vary from disc to disc.

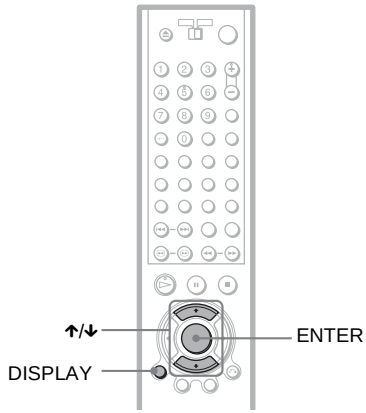
2 Press ←/↑/↓/→ or the number buttons to select the item you want to play or change.

3 Press ENTER.

Hint
The disc's menu also appears when the TOP MENU or MENU button on the player is pressed.

Selecting "ORIGINAL" or "PLAY LIST" on a DVD-RW Disc DVD-RW

Some DVD-RW discs in VR (Video Recording) mode have two types of titles for playback: originally recorded titles (ORIGINAL) and titles that can be created on recordable DVD players for editing (PLAY LIST). You can select the type of titles to be played.

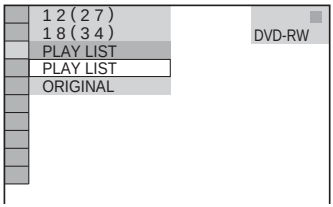


1 Press DISPLAY in stop mode.

The Control Menu appears.

2 Press ↑/↓ to select (ORIGINAL/PLAY LIST), then press ENTER.

The options for "ORIGINAL/PLAY LIST" appear.



3 **Press ↑/↓ to select the setting.**

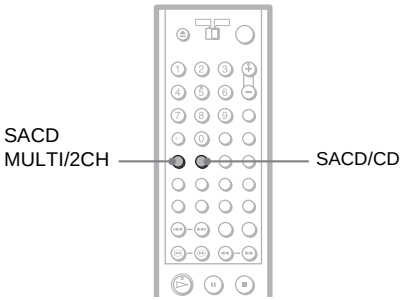
- PLAY LIST: plays the titles created from “ORIGINAL” for editing.
- ORIGINAL: plays the titles originally recorded.

4 **Press ENTER.**

To turn off the Control Menu

Press DISPLAY repeatedly until the Control Menu is turned off.

Selecting a Playback Area for a Super Audio CD Disc SA-CD

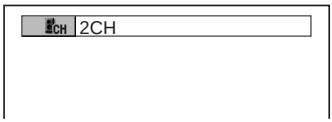


Selecting a playback area on a 2 channel + Multi-channel Super Audio CD

Some Super Audio CDs consist of a 2 channel playback area and a multi-channel playback area. You can select the playback area you want to listen to.

1 **Press SACD MULTI/2CH in stop mode.**

The following display appears.



2 **Press SACD MULTI/2CH repeatedly to select the item.**

- MULTI: plays a multi-channel playback area.
- 2CH: plays a 2 channel playback area.

The “MULTI” indicator in the front panel display lights up when playing a multi-channel playback area.

Hint

You can also select “MULTI/2CH” from the Control Menu (page 12).

Selecting a playback layer when playing a hybrid Super Audio CD

Some Super Audio CDs consist of an HD layer and a CD layer. You can select the playback layer you want to listen to.

Press SACD/CD in stop mode.

Each time you press the button, an HD layer or a CD layer is alternately selected. When playing a CD layer, the "CD" indicator in the front panel display lights up.

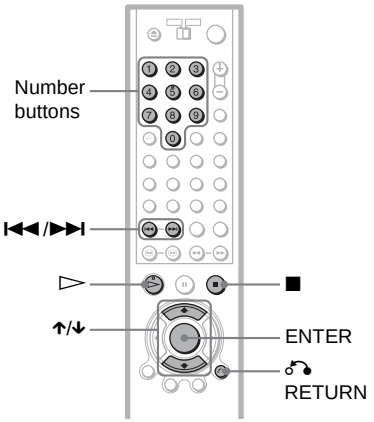
Notes

- For details about Super Audio CD discs, see page 84.
- Each play mode function works only within the selected layer or playback area.

Playing VIDEO CDs With PBC Functions (PBC Playback)

VCD

PBC (Playback Control) allows you to play VIDEO CDs interactively by following the menu on the TV screen.



1 Start playing a VIDEO CD with PBC functions.

The menu for your selection appears.

2 Select the item number you want by pressing ↑/↓ or the number buttons.

3 Press ENTER.

4 Follow the instructions in the menu for interactive operations.

Refer to the instructions supplied with the disc, as the operating procedure may differ depending on the VIDEO CD.

To return to the menu

Press ↩ RETURN.

Hint

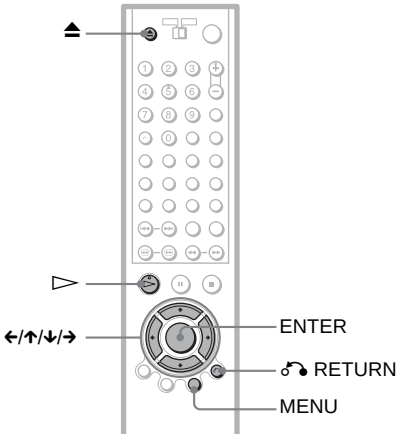
To play without using PBC, press ⏮/⏭ or the number buttons while the player is stopped to select a track, then press ▷ or ENTER.
"Play without PBC" appears on the TV screen and the player starts continuous play. You cannot play still pictures such as a menu.
To return to PBC playback, press ■ twice then press ▷.

Notes

- Depending on the VIDEO CD, "Press ENTER" in step 3 may appear as "Press SELECT" in the instructions supplied with the disc. In this case, press ▷.
- The PBC functions of Super VCDs do not work with this player. Super VCDs are played in continuous play mode only.

Playing an MP3 Audio Track DATA CD

You can play back DATA CDs (CD-ROMs/CD-Rs/CD-RWs) recorded in MP3 (MPEG1 Audio Layer 3) format.



1 Press ⏏ and place a DATA CD on the disc tray.

2 Press ▷.

The disc tray closes, and the player starts to play the first MP3 audio track in the first album on the disc.

Notes

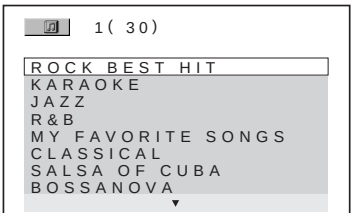
- The player can play MP3 audio tracks recorded in the following sampling frequencies: 32 kHz, 44.1 kHz, 48 kHz.
- The playback order may be different from the edited order. See "The Playback order of MP3 audio tracks" below for details.

Selecting an album and track

1 Press MENU.

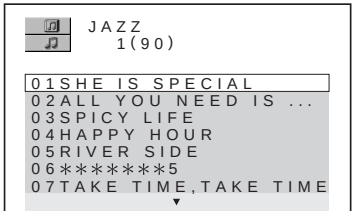
The list of MP3 albums recorded on the DATA CD appears.

➡continued



2 Select an album using ↑/↓ and press ENTER.

The list of tracks contained in the album appears.



3 Select a track using ↑/↓ and press ENTER.

The selected track starts playing.
When a track or album is being played, its title is shaded.

To go to the next or previous page

Press → or ←.

To return to the previous display

Press ↩ RETURN.

To turn off the display

Press MENU.

Notes

- Only the letters in the alphabet and numbers can be used for album or track names. Anything else is displayed as "∗."
- ID3 tags cannot be displayed.

About MP3 audio tracks

You can play MP3 audio tracks on CD-ROMs, CD-Rs, or CD-RWs. However, the discs must be recorded according to ISO9660 level 1, level 2, or Joliet format for the player to recognize the tracks.
You can also play discs recorded in Multi Session.

See the instructions of the CD-R/RW device or recording software (not supplied) for details on the recording format.

To play a Multi Session CD

This player can play Multi Session CDs when an MP3 audio track is located in the first session. Any subsequent MP3 audio tracks, recorded in the later sessions, can also be played back.
When audio tracks and images in music CD format or video CD format are recorded in the first session, only the first session will be played back.

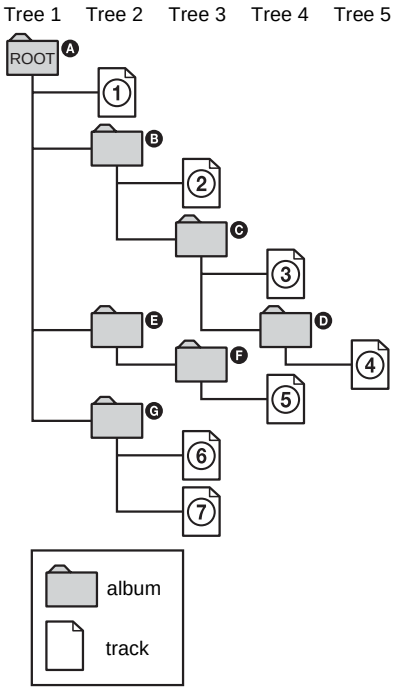
Notes

- If you put the extension ".MP3" to data not in MP3 format, the player cannot recognize the data properly and will generate a loud noise which could damage your speaker system.
- The player cannot play audio tracks in MP3PRO format.

The Playback order of MP3 audio tracks

The playback order of albums and tracks recorded on a DATA CD is as follows.

◆Structure of disc contents



When you insert a DATA CD and press ▷, the numbered tracks are played sequentially, from ① through ⑦. Any sub-albums/tracks contained within a currently selected album take priority over the next album in the same tree. (Example: Ⓒ contains Ⓓ so ④ is played before ⑤.)
When you press MENU and the list of MP3 albums appears (page 39), the albums are arranged in the following order: Ⓐ → Ⓑ → Ⓒ → Ⓓ → Ⓕ → Ⓖ. Albums that do not contain tracks (such as album Ⓔ) do not appear in the list.

Hints

- If you add numbers (01, 02, 03, etc.) to the front of the track file names, the tracks will be played in that order.
- Since a disc with many trees takes longer to start playback, it is recommended that you create albums of no more than two trees.

Notes

- Depending on the software you use to create the DATA CD, the playback order may differ from the illustration above.
- The playback order above may not be applicable if there are more than a total of 999 albums and tracks in the DATA CD.
- The player can recognize up to 499 albums (the player will count just albums, including albums that do not contain MP3 audio tracks). The player will not play any albums beyond the first 499 albums. Of the first 499 albums, the player will play no more than a combined total of 999 albums and tracks.

Various Play Mode Functions (Programme Play, Shuffle Play, Repeat Play, A-B Repeat Play)

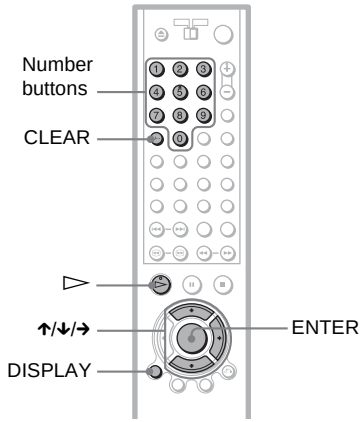
You can set the following play modes:
- Programme Play (page 41)
- Shuffle Play (page 43)
- Repeat Play (page 44)
- A-B Repeat Play (page 44)

Note

The play mode is cancelled when:
– you open the disc tray.
– the player enters standby mode by pressing I/⏻.

Creating your own programme (Programme Play) DVD-V VCD SA-CD CD

You can play the contents of a disc in the order you want by arranging the order of the titles, chapters, or tracks on the disc to create your own programme. You can programme up to 99 titles, chapters, and tracks.



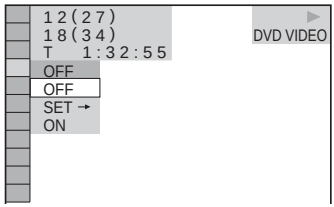
➡continued

1 Press DISPLAY twice (when playing a Super Audio CD/CD, press once).

The Control Menu appears.

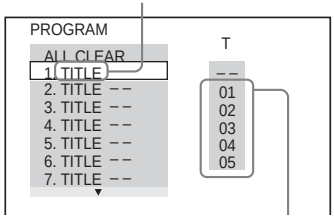
2 Press ↑/↓ to select (PROGRAM), then press ENTER.

The options for "PROGRAM" appear.



3 Press ↑/↓ to select "SET →," then press ENTER.

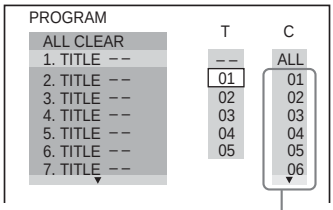
"TRACK" is displayed when you play a VIDEO CD, Super Audio CD, or CD.



Titles or tracks recorded on a disc

4 Press →.

The cursor moves to the title or track row "T" (in this case, "01").



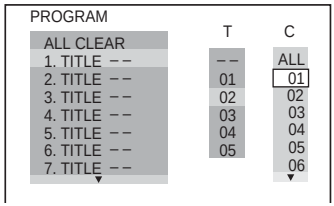
Chapters recorded on a disc

5 Select the title, chapter, or track you want to programme.

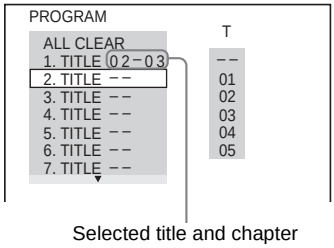
◆ When playing a DVD VIDEO

For example, select chapter "03" of title "02."

Press ↑/↓ or the number buttons to select "02" under "T," then press ENTER.



Next, press ↑/↓ or the number buttons to select "03" under "C," then press ENTER.



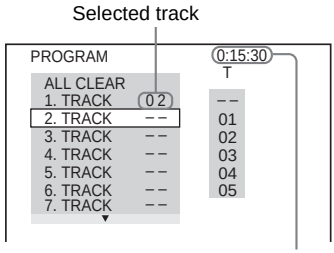
Selected title and chapter

◆ When playing a VIDEO CD, Super Audio CD, or CD

For example, select track "02."

Press ↑/↓ or the number buttons to select "02" under "T," then press ENTER.

A track number may be displayed in 3 digits for a Super Audio CD.



Total time of the programmed tracks

6 To programme other titles, chapters, or tracks, repeat steps 4 to 5.

The programmed titles, chapters, and tracks are displayed in the selected order.

7 Press ▷ to start Programme Play.

Programme Play begins.

When the programme ends, you can restart the same programme again by pressing ▷.

To return to normal play

Press CLEAR, or select “OFF” in step 3. To play the same programme again, select “ON” in step 3 and press ENTER.

To turn off the display

Press DISPLAY repeatedly until the display is turned off.

To change or cancel a programme

1. Follow steps 1 through 3 of “Creating your own programme (Programme Play).”
2. Select the programme number of the title, chapter, or track you want to change or cancel using ↑/↓ or the number buttons, and press →.
3. Follow step 5 for new programming. To cancel a programme, select “--” under “T,” then press ENTER.

To cancel all the titles, chapters, or tracks in the programmed order

1. Follow steps 1 through 3 of “Creating your own programme (Programme Play).”
2. Press ↑ and select “ALL CLEAR.”
3. Press ENTER.

Hint

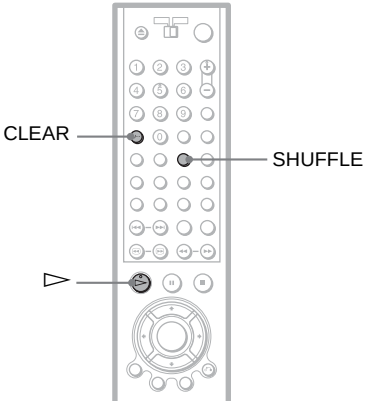
You can do Repeat Play or Shuffle Play of the programmed titles, chapters, or tracks. During Programme Play, follow the steps of “Repeat Play” (page 44) or “Shuffle Play” (page 43).

Note

When playing Super VCDs, the total time of the programmed tracks does not appear on the screen.

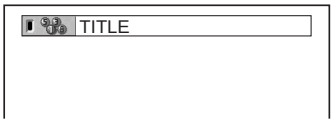
Playing in random order (Shuffle Play) DVD-V VCD SA-CD CD

You can have the player “shuffle” titles, chapters, or tracks. Subsequent “shuffling” may produce a different playing order.



1 Press SHUFFLE during playback.

The following display appears.



2 Press SHUFFLE repeatedly to select the item to be shuffled.

◆ When playing a DVD VIDEO

- TITLE
- CHAPTER

◆ When playing a VIDEO CD, Super Audio CD, or CD

- TRACK

◆ When Programme Play is activated

- ON: shuffles titles, chapters, or tracks selected in Programme Play.

To return to normal play

Press CLEAR, or select “OFF” in step 2.

Hints

- You can set Shuffle Play while the player is stopped. After selecting the “SHUFFLE” option, press ▷. Shuffle Play starts.

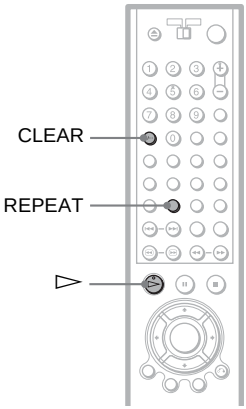
→continued

- Up to 200 chapters in a disc can be played in random order when “CHAPTER” is selected.
- You can also select “SHUFFLE” from the Control Menu (page 12).

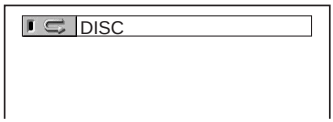
Playing repeatedly (Repeat Play)

DVD-V DVD-RW VCD SA-CD CD DATA CD

You can play all of the titles or tracks on a disc or a single title, chapter, or track repeatedly.
You can use a combination of Shuffle or Programme Play modes.



1 **Press REPEAT during playback.**
The following display appears.



2 **Press REPEAT repeatedly to select the item to be repeated.**

◆ When playing a DVD VIDEO
- DISC: repeats all of the titles.
- TITLE: repeats the current title on a disc.
- CHAPTER: repeats the current chapter.

◆ When playing a DVD-RW
- DISC: repeats all the titles of the selected type.
- TITLE: repeats the current title on a disc.
- CHAPTER: repeats the current chapter.

◆ When playing a VIDEO CD, Super Audio CD, or CD
- DISC: repeats all of the tracks.
- TRACK: repeats the current track.

◆ When playing a DATA CD (MP3 audio)
- DISC: repeats all of the albums.
- ALBUM: repeats the current album.
- TRACK: repeats the current track.

◆ When Programme Play or Shuffle Play is activated
- ON: repeats Programme Play or Shuffle Play.

To return to normal play

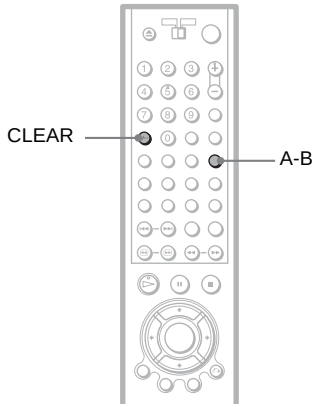
Press CLEAR, or select “OFF” in step 2.

Hints

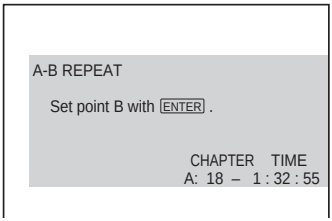
- You can set Repeat Play while the player is stopped. After selecting the “REPEAT” option, press ▷. Repeat Play starts.
- You can also select “REPEAT” from the Control Menu (page 12).

Repeating a specific portion (A-B Repeat Play) DVD-V DVD-RW VCD SA-CD CD

You can play a specific portion of a title, chapter or track repeatedly. (This function is useful when you want to memorize lyrics, etc.)



1 **During playback, when you find the starting point (point A) of the portion to be played repeatedly, press A-B.**
The starting point (point A) is set.



2 When you reach the ending point (point B), press A-B again.
The set points are displayed and the player starts repeating this specific portion.

To return to normal play
Press CLEAR.

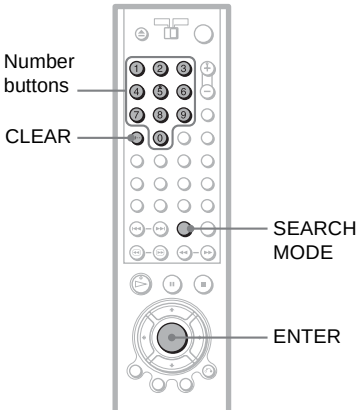
Hint
You can also select "A-B REPEAT" from the Control Menu (page 12).

Notes

- When you set A-B Repeat Play, the settings for Shuffle Play, Repeat Play, and Programme Play are cancelled.
- A-B Repeat Play does not work for titles containing still pictures on a DVD-RW in VR mode.
- A-B Repeat Play does not work across multiple titles on a DVD-RW in VR mode.

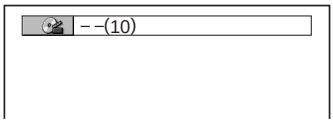
Searching for a Title/ Chapter/Track/Index/ Scene (Search mode) DVD-V DVD-RW VCD SA-CD CD DATA CD

You can search a DVD by title or chapter, and you can search a VIDEO CD/Super Audio CD/CD by track, index, or scene. As titles and tracks are assigned unique numbers on the disc, you can select the desired one by entering its number. Or, you can search for a scene using the time code.



1 Press SEARCH MODE.

The following display appears.
"-- (∗∗)" appears next to the icon (∗∗ refers to a number).
The number in parentheses indicates the total number of titles, tracks, indexes, scenes, etc. of the disc.



2 Press SEARCH MODE repeatedly to select the search method.

◆ When playing a DVD VIDEO/DVD-RW
TITLE
CHAPTER
TIME/TEXT
Select "TIME/TEXT" to search for a starting point by inputting the time code.

◆ When playing a VIDEO CD
TRACK
INDEX

◆ When playing a VIDEO CD with PBC Playback
SCENE
INDEX

◆ When playing a Super Audio CD/CD
TRACK
INDEX

◆ When playing a DATA CD (MP3 audio)
ALBUM
TRACK

3 Select the number of the title, track, scene, time code, etc. you want by pressing the number buttons to select the digit.

For example, to find the scene at 2 hours, 10 minutes, and 20 seconds after the beginning, select "TIME/TEXT" in step 2 and enter "21020."

If you make a mistake

Cancel the number by pressing CLEAR, then select another number.

4 Press ENTER.

The player starts playback from the selected number.

To turn off the display

Press SEARCH MODE repeatedly until the display is turned off.

Hints

- You can display the first scene of titles, chapters or tracks recorded on the disc on a screen divided into 9 sections. You can start playback directly by selecting one of the scenes (page 47).
- You can also select "TITLE," "CHAPTER," "TRACK," "INDEX," "SCENE," "TIME/TEXT," or "ALBUM" from the Control Menu (page 12).

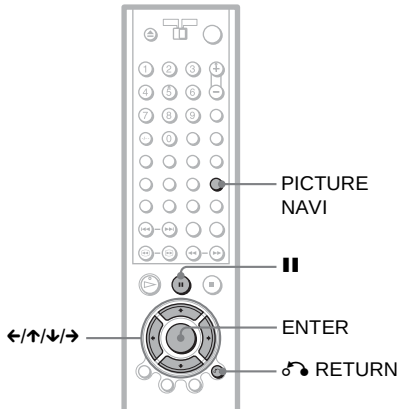
Note

You cannot search for a still picture on a DVD-RW in VR mode.

Searching by Scene

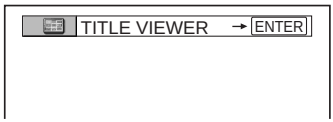
(PICTURE NAVIGATION)

You can divide the screen into 9 subscreens and find the desired scene quickly.



1 Press PICTURE NAVI during playback.

The following display appears.



2 Press PICTURE NAVI repeatedly to select the item.

Refer to the explanations given for each item in the following sections.

- TITLE VIEWER (DVD VIDEO only)
- CHAPTER VIEWER (DVD VIDEO only)
- TRACK VIEWER (VIDEO CD only)
- STROBE PLAYBACK (DVD VIDEO/VIDEO CD only)
- ANGLE VIEWER (DVD VIDEO only)

3 Press ENTER.

➡continued

To return to normal play

Press ↩ RETURN.

Hint

You can also select "PICTURE NAVIGATION" from the Control Menu (page 12).

Notes

- The "PICTURE NAVIGATION" is not available when playing Super VCDs.
- Depending on the disc, you may not be able to select all functions.
- The sound is muted when using this function.

Scanning the title, chapter, or track (TITLE VIEWER, CHAPTER VIEWER, TRACK VIEWER)

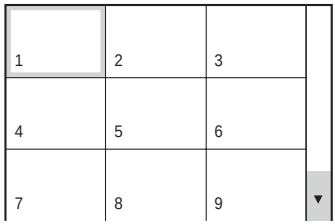
DVD-V VCD

You can divide the screen into 9 subscreens and display the first scene of titles, chapters, or tracks.

You can also play back from the selected title, chapter, or track. After performing step 3 of "Searching by Scene (PICTURE NAVIGATION)" above, select the scene using ←/↑/↓/→ and press ENTER.

Hint

If there are more than 9 titles, chapters, or tracks, ▼ is displayed at the bottom right.
To display the additional titles, chapters, or tracks, select the bottom right scene (the position 9) and press ↓. To return to the previous scene, select the top left scene (the position 1) and press ↑.



Dividing a scene into 9 sections (STROBE PLAYBACK)

DVD-V VCD

You can display 9 consecutive moving pictures on the screen.

When you press ❚❚ after performing step 3 of "Searching by Scene (PICTURE NAVIGATION)" above, the moving pictures pause.

Displaying different angles simultaneously (ANGLE VIEWER)

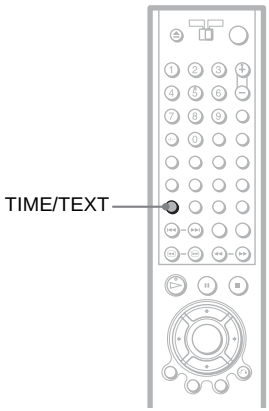
DVD-V

If various angles (multi-angles) for a scene are recorded on the DVD VIDEO, you can display all of the angles recorded on the disc on the screen divided into 9 sections.

You can also play back from the selected angle. After performing step 3 of "Searching by Scene (PICTURE NAVIGATION)" above, select the angle using ←/↑/↓/→ and press ENTER.

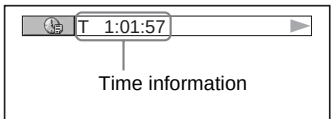
Checking the Playing Time and Remaining Time DVD-V DVD-RW VCD SA-CD CD DATA CD

You can check the playing time and remaining time of the current title, chapter, or track. Also, you can check the DVD/Super Audio CD/CD text or track name (MP3 audio) recorded on the disc.



1 Press TIME/TEXT during playback.

The following display appears.



2 Press TIME/TEXT repeatedly to change the time information.

The display and the kinds of time that you can change depend on the disc you are playing.

◆ When playing a DVD VIDEO or DVD-RW

- T ∗:∗:∗ (hours: minutes: seconds)
  Playing time of the current title
- T–∗:∗:∗
  Remaining time of the current title
- C ∗:∗:∗
  Playing time of the current chapter
- C–∗:∗:∗
  Remaining time of the current chapter

◆ When playing a VIDEO CD (with PBC functions)

- ∗:∗ (minutes: seconds)
  Playing time of the current scene

◆ When playing a VIDEO CD (without PBC functions), Super Audio CD, or CD

- T ∗:∗ (minutes: seconds)
  Playing time of the current track
- T–∗:∗
  Remaining time of the current track
- D ∗:∗
  Playing time of the current disc
- D–∗:∗
  Remaining time of the current disc

◆ When playing a Super VCD

The remaining time cannot be displayed.

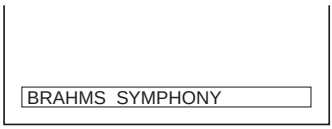
- T ∗:∗ (minutes: seconds)
  Playing time of the current track

◆ When playing a DATA CD (MP3 audio)

- ∗:∗ (minutes: seconds)
  Playing time of the current track

To check the DVD/Super Audio CD/CD text or track and album names (MP3 audio)

Press TIME/TEXT repeatedly in step 2 to display text recorded on the DVD VIDEO/ Super Audio CD/CD/DATA CD.
The DVD/Super Audio CD/CD text appears only when text is recorded in the disc. You cannot change the text. If the disc does not contain text, “NO TEXT” appears.



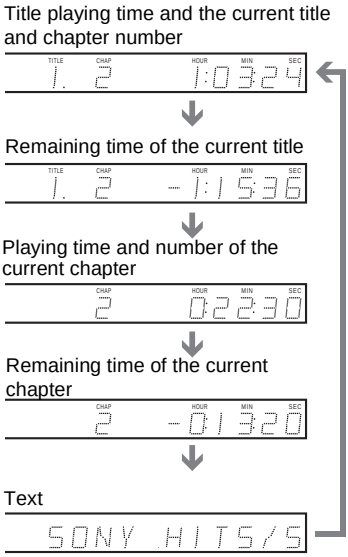
For DATA CDs, the track and album names of the MP3 audio track appears (page 52).

➡continued

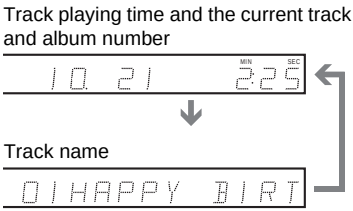
Checking the information on the front panel display

You can view the time information and text displayed on the TV screen also on the front panel display. The information on the front panel display changes as follows when you change the time information on your TV screen.

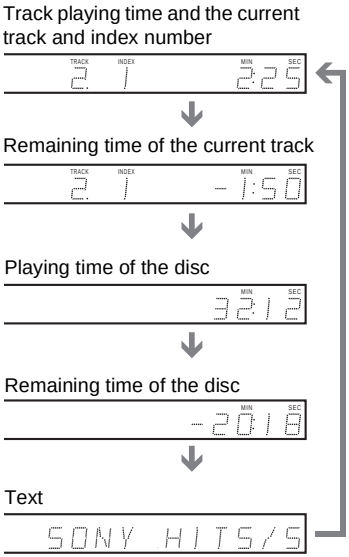
When playing a DVD VIDEO or DVD-RW


Title playing time and the current title and chapter number
TITLE 1 CHAP 2 HOUR MIN 1:03 SEC 24
Remaining time of the current title
TITLE 1 CHAP 2 -1:15:36
Playing time and number of the current chapter
CHAP 2 HOUR 0:22 MIN SEC 30
Remaining time of the current chapter
CHAP 2 -01 HOUR MIN 32 SEC 0
Text
SONY HITS/5

When playing a DATA CD (MP3 audio)



When playing a VIDEO CD (without PBC functions), Super Audio CD, or CD


Track playing time and the current track and index number
TRACK 2 INDEX 1 MIN 2:25 SEC
Remaining time of the current track
TRACK 2 INDEX 1 -1:50
Playing time of the disc
MIN 32:12 SEC
Remaining time of the disc
-20:18
Text
SONY HITS/5

Hints

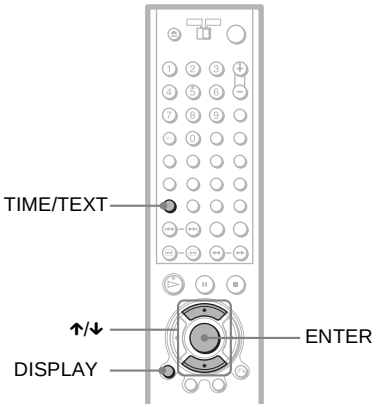
- When playing VIDEO CDs with PBC functions, the scene number and the playing time are displayed.
- Long text that does not fit in a single line will scroll across the front panel display.
- You can also check the time information and text using the Control Menu (page 12).

Notes

- Depending on the type of disc being played, the disc's text or track name may not be displayed.
- The player can only display the first level of the disc's text, such as the disc name or title.
- Playing time of MP3 audio tracks may not be displayed correctly.

Checking the Play Information

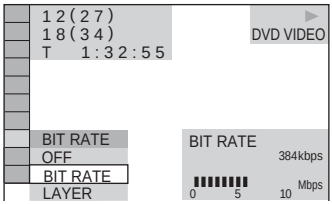
You can check information such as the bit rate or the disc layer that is being played.



Checking the play information of a DVD (ADVANCED) DVD-V DVD-RW

1 **Press DISPLAY during playback.**
The Control Menu is displayed.

2 **Press ↑/↓ to select [ADVANCED], then press ENTER.**
The options for "ADVANCED" appear.



3 **Press ↑/↓ to select items.**
For each item, refer to "Displays of each item."
- BIT RATE: displays the bit rate.
- LAYER: displays the layer and the pick-up point.

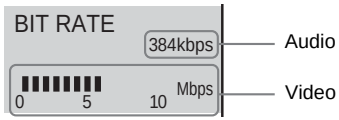
4 **Press ENTER.**

To turn off the ADVANCED window
Select "OFF" in step 3.

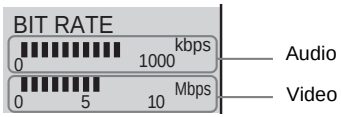
To turn off the Control Menu
Press DISPLAY repeatedly until the Control Menu is turned off.

Display of each item
By pressing DISPLAY repeatedly, you can display either "BIT RATE" or "LAYER," whichever was selected in "ADVANCED."

◆BIT RATE

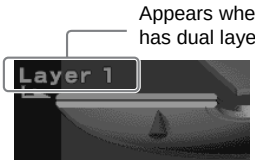


When playing MPEG audio sound tracks



Bit rate refers to the amount of video/audio data per second in a disc. While playing a disc, an approximate bit rate of the playback picture is displayed as Mbps (Mega bit per second) and the audio as kbps (kilo bit per second). The higher the bit rate, the larger the amount of data. However, this does not always mean that you can get higher quality pictures or sounds.

◆LAYER

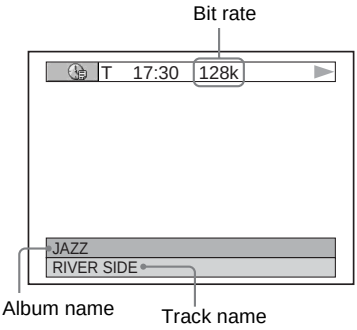


Indicates the approximate point where the disc is playing.
If it is a dual-layer DVD, the player indicates which layer is being read ("Layer 0" or "Layer 1").
For details on the layers, see page 83 (DVD VIDEO).

➡continued

Checking the play information of a DATA CD DATA CD

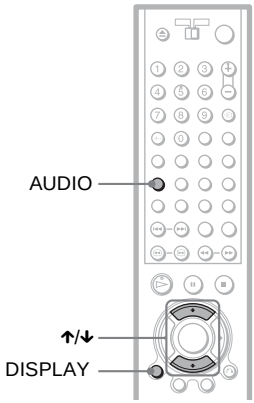
By pressing TIME/TEXT while playing MP3 audio tracks on a DATA CD, you can display the audio bit rate (the amount of data per second of the current audio).



Changing the Sound

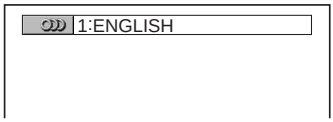
DVD-V DVD-RW VCD CD DATA CD

When playing a DVD VIDEO recorded in multiple audio formats (PCM, Dolby Digital, MPEG audio, or DTS), you can change the audio format. If the DVD VIDEO is recorded with multilingual tracks, you can also change the language.
With CDs, DATA CDs, or VIDEO CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers. For example, when playing a disc containing a song with the vocals on the right channel and the instruments on the left channel, you can hear the instruments from both speakers by selecting the left channel.



1 Press AUDIO during playback.

The following display appears.



2 Press AUDIO repeatedly to select the desired audio signal.

◆ When playing a DVD VIDEO
Depending on the DVD VIDEO, the choice of language varies.
When 4 digits are displayed, they indicate a language code. Refer to "Language Code List" on page 86 to see which language the code represents.
When the same language is displayed two or more times, the DVD VIDEO is recorded in multiple audio formats.

◆ When playing a DVD-RW
The types of sound tracks recorded on a disc are displayed. The default setting is underlined.
Example:
- 1: MAIN (main sound)
- 1: SUB (sub sound)
- 1: MAIN+SUB (main and sub sound)

◆ When playing a VIDEO CD, CD, or DATA CD (MP3 audio)
The default setting is underlined.
- STEREO: The standard stereo sound
- 1/L: The sound of the left channel (monaural)
- 2/R: The sound of the right channel (monaural)

◆ When playing a Super VCD
The default setting is underlined.
- 1:STEREO: The stereo sound of the audio track 1
- 1:1/L: The sound of the left channel of the audio track 1 (monaural)
- 1:2/R: The sound of the right channel of the audio track 1 (monaural)
- 2:STEREO: The stereo sound of the audio track 2
- 2:1/L: The sound of the left channel of the audio track 2 (monaural)
- 2:2/R: The sound of the right channel of the audio track 2 (monaural)

Hint
You can also select "AUDIO" from the Control Menu (page 12).

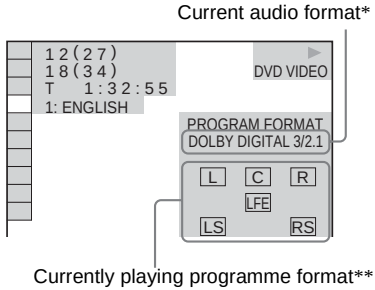
➡continued

Notes

- You cannot change the sound for Super Audio CDs.
- While playing a Super VCD on which the audio track is not recorded, no sound will come out when you select "2:STEREO," "2:1/L," or "2:2/R."

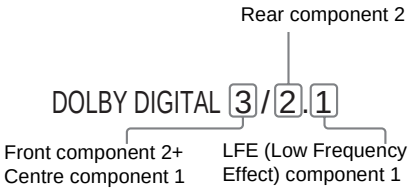
Displaying the audio information of the disc DVD-V

Press DISPLAY during playback to display the Control Menu. Select "AUDIO" using ↑/↓. The channels being played are displayed on the screen.
For example, in Dolby Digital format, multiple signals ranging from monaural to 5.1 channel signals can be recorded on a DVD VIDEO. Depending on the DVD VIDEO, the number of the recorded channels may differ.



*"PCM," "MPEG," "DTS," or "DOLBY DIGITAL" is displayed.
In the case of "DOLBY DIGITAL," the channels in the playing track are displayed by numbers as follows:

For Dolby Digital 5.1 ch:



**The letters in the programme format display indicate the following sound components:

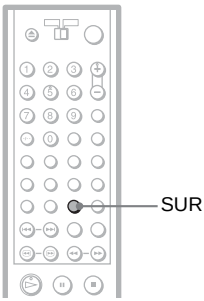
L: Front (left)
R: Front (right)
C: Centre
LS: Rear (left)
RS: Rear (right)
S: Rear (monaural): The rear component of the Dolby Surround processed signal and the Dolby Digital signal
LFE: Low Frequency Effect signal

Hint

When playing the Dolby Digital or DTS sound tracks, "LFE" is enclosed in a dotted line when the LFE signal is not being output.

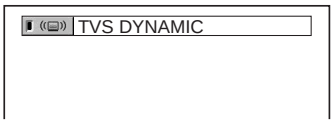
SURROUND Mode Settings DVD-V DVD-RW VCD CD DATA CD

You can enjoy surround sounds while playing discs including Dolby Digital, DTS, and MPEG audio DVDs, even if you have only 2 or 4 speakers. Select the surround mode that best suits your speaker setup.



1 Press SUR during playback.

The following display appears.



2 Press SUR repeatedly to select one of the surround modes.

Refer to the following explanations given for each item.

◆ For 2 speaker setups
- TVS DYNAMIC
- TVS WIDE
- TVS NIGHT
- TVS STANDARD

◆ For 4 to 6 speaker setups
(If you select "NONE" in the setting of "REAR" in "SPEAKER SETUP"(page 77), you cannot select these modes.)
- NORMAL SURROUND
- ENHANCED SURROUND
- VIRTUAL REAR SHIFT
- VIRTUAL MULTI REAR
- VIRTUAL MULTI DIMENSION

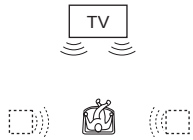
To cancel the setting
Select "OFF" in step 2.

For 2 speaker setups

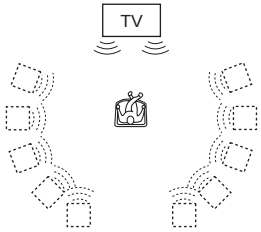
When you connect a stereo TV or 2 front speakers, TVS (TV Virtual Surround) lets you enjoy surround sound effects by using sound imaging to create virtual rear speakers from the sound of the front speakers (L: left, R: right) without using actual rear speakers.

If the player is set up to output the signal from the DIGITAL OUT (OPTICAL or COAXIAL) jack, the surround effect will be heard only when "DOLBY DIGITAL" and "DTS" are set to "D-PCM" and "MPEG" is set to "PCM" in "AUDIO SETUP"(page 76).

◆TVS DYNAMIC
Creates one set of virtual rear speakers from the sound of the actual front speakers (L, R) as shown below.
This mode is effective when the distance between the front L and R speakers is short, such as with built-in speakers on a stereo TV.



◆TVS WIDE
Creates five sets of virtual rear speakers from the sound of the actual front speakers (L, R) as shown below.
This mode is effective when the distance between the front L and R speakers is short, such as with built-in speakers on a stereo TV.

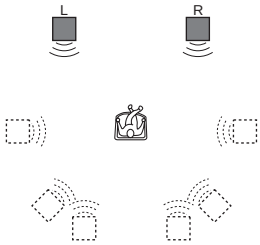


◆TVS NIGHT

Large sounds, such as explosions, are suppressed, but the quieter sounds are unaffected. This feature is useful when you want to hear the dialog and enjoy the surround sound effects of “TVS WIDE” at low volume.

◆TVS STANDARD

Creates three sets of virtual rear speakers from the sound of the actual front speakers (L, R) as shown below. This mode is effective when you use 2 separate front speakers.



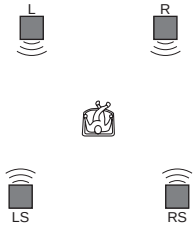
L: Front speaker (left)
R: Front speaker (right)
⬚: Virtual speaker

For 4 to 6 speaker setups

You can enjoy the following surround effects by using the 2 front speakers and 2 rear speakers.
Connect the player to the amplifier (receiver) with the D-1 connection (page 25).
You can experience Dolby Surround (Pro Logic) sounds or Digital Cinema Sound (DCS). DCS uses sound imaging to shift the sound of the rear speakers away from the actual speaker position or create entire sets of virtual rear speakers from one set of actual rear speakers. “VIRTUAL REAR SHIFT,” “VIRTUAL MULTI REAR,” and “VIRTUAL MULTI DIMENSION” make use of this technology.

◆NORMAL SURROUND

Software with 2 channel audio signals is decoded with the Dolby Surround (Pro Logic) decoder to create surround effects. The rear speakers will emit identical monaural sounds. If you are using a centre speaker, the appropriate sounds for the centre speaker will be delivered.

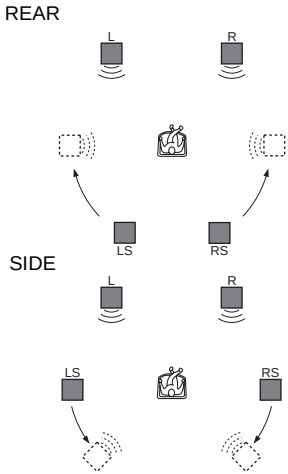


◆ENHANCED SURROUND

Provides a greater sense of presence from a Dolby Surround (Pro Logic) source with a monaural rear channel signal. Produces a stereo like effect in the rear channels.

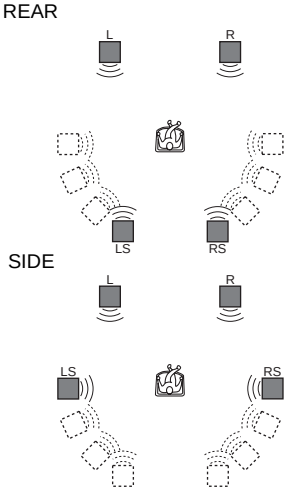
◆VIRTUAL REAR SHIFT

Shifts the sound of the rear speakers away from the actual speaker position.
The shift position differs according to “REAR” or “SIDE” setting of the rear speakers (page 77).



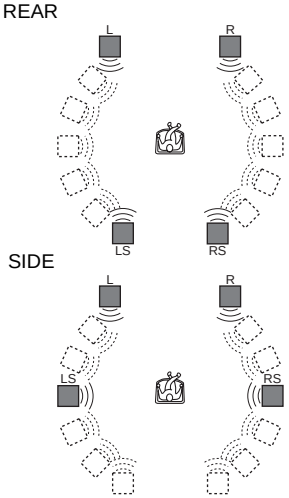
◆VIRTUAL MULTI REAR

Creates an array of virtual rear speakers from one set of actual rear speakers.
The position of the virtual rear speakers differs according to “REAR” or “SIDE” setting of the rear speakers (page 77).



◆VIRTUAL MULTI DIMENSION

Creates an array of virtual rear speaker positions higher than the listener from a single set of actual rear speakers.
This mode creates five sets of virtual speakers surrounding the listener at approximately a 30° angle of elevation. The effect differs according to “REAR” or “SIDE” setting of the rear speakers (page 77).



L: Front speaker (left)
R: Front speaker (right)
LS: Rear speaker (left)
RS: Rear speaker (right)
□: Virtual speaker

Hints

- You can select “SURROUND” by pressing the SURROUND button on the player.
- You can also select “SURROUND” from the Control Menu (page 12).

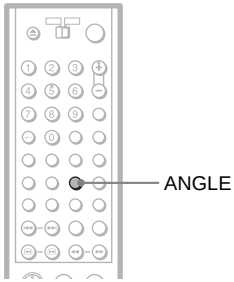
Notes

- To enjoy the multichannel audio through the 5.1CH OUTPUT jacks, correctly set each speaker position and distance (page 77).
- When the playing signal does not contain a signal for the rear speakers, it may be difficult to hear the surround effects.
- When you select one of the TVS modes, the player does not output the sound of centre speaker.
- When you select one of the surround modes, turn off the surround setting of the connected TV or amplifier (receiver).
- Make sure that your listening position is between and at an equal distance from your speakers, and that the speakers are located in similar surroundings.
- “TVS NIGHT” only works with Dolby Digital discs. However, not all discs will respond to the “TVS NIGHT” function in the same way.
- If you use the DIGITAL OUT (OPTICAL or COAXIAL) jack and set “DOLBY DIGITAL” to “DOLBY DIGITAL,” “DTS” to “DTS,” and “MPEG” to “MPEG” in “AUDIO SETUP,” sound will come from your speakers but it will not have the SURROUND effect.
- If the player is set up to output the signal from the DIGITAL OUT (OPTICAL or COAXIAL) jack, the TVS effect will not be heard when you play a CD.

Changing the Angles

DVD-V

If various angles (multi-angles) for a scene are recorded on the DVD VIDEO, "ANGLE" appears in the front panel display. This means that you can change the viewing angle.



1 Press ANGLE during playback.

The number of the angle appears on the display.

2 Press ANGLE repeatedly to select the angle number.

The scene changes to the selected angle.

Hints

- You can display all the angles recorded on the disc on the same screen, and start playback directly from the chosen angle. The angles are displayed on a screen divided into 9 sections (page 47).
- You can also select "ANGLE" from the Control Menu (page 12).

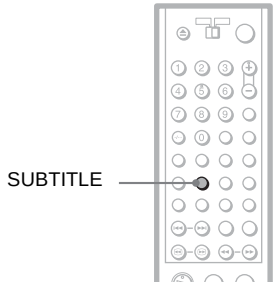
Note

Depending on the DVD VIDEO, you may not be able to change the angles even if multi-angles are recorded on the DVD VIDEO.

Displaying the Subtitles

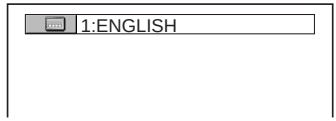
DVD-V DVD-RW

If subtitles are recorded on the discs, you can change the subtitles or turn them on and off whenever you want while playing a DVD.



1 Press SUBTITLE during playback.

The following display appears.



2 Press SUBTITLE repeatedly to select the setting.

◆ When playing a DVD VIDEO
Select the language.
Depending on the DVD VIDEO, the choice of language varies.
When 4 digits are displayed, they indicate a language code. Refer to "Language Code List" on page 86 to see which language the code represents.

◆ When playing a DVD-RW
Select "ON."

To turn off the subtitles

Select "OFF" in step 2.

Hint

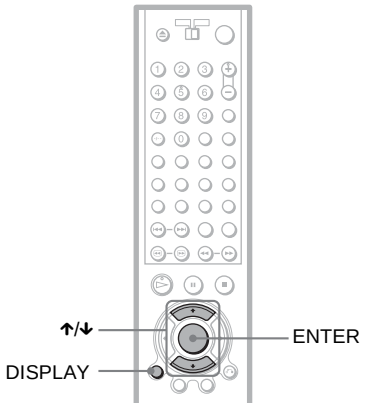
You can also select "SUBTITLE" from the Control Menu (page 12).

Note

Depending on the DVD VIDEO, you may not be able to change the subtitles even if multilingual subtitles are recorded on it. You also may not be able to turn them off.

Adjusting the Picture Quality (BNR) DVD-V DVD-RW VCD

The Block Noise Reduction (BNR) function adjusts the picture quality by reducing the "block noise" or mosaic like patterns that appear on your TV screen.

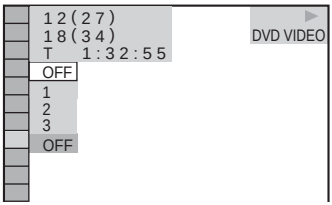


1 Press DISPLAY twice during playback.

The Control Menu appears.

2 Press ↑/↓ to select BNR (BNR), then press ENTER.

The options for "BNR" appear.



3 Press ↑/↓ to select a level.

- 1: reduces the "block noise."
- 2: reduces the "block noise" more than 1.
- 3: reduces the "block noise" more than 2.

➡continued

4 Press ENTER.

The disc plays with the setting you selected.

To cancel the "BNR" setting

Select "OFF" in step 3.

To turn off the Control Menu

Press DISPLAY repeatedly until the Control Menu is turned off.

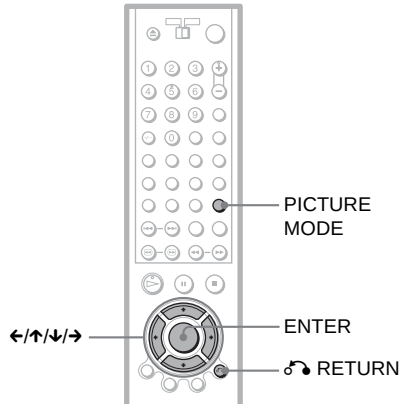
Notes

- If the outlines of the images on your screen should become blurred, set "BNR" to "OFF."
- Depending on the disc or the scene being played, the "BNR" effect may be hard to discern.

Adjusting the Playback Picture (CUSTOM PICTURE MODE)

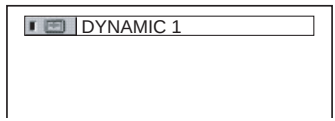
DVD-V DVD-RW VCD

You can adjust the video signal of the DVD or VIDEO CD from the player to obtain the picture quality you want. Choose the setting that best suits the programme you are watching.
When you select "MEMORY," you can make further adjustments to each element of the picture (colour, brightness, etc.).



1 Press PICTURE MODE during playback.

The following display appears.



2 Press PICTURE MODE repeatedly to select the setting you want.

The default setting is underlined.

- STANDARD: displays a standard picture.
- DYNAMIC 1: produces a bold dynamic picture by increasing the picture contrast and the colour intensity.
- DYNAMIC 2: produces a more dynamic picture than DYNAMIC 1 by further increasing the picture contrast and the colour intensity.

- CINEMA 1: enhances details in dark areas by increasing the black level.
- CINEMA 2: White colours become brighter and black colours become richer, and the colour contrast is increased.
- MEMORY: adjusts the picture in greater detail.

Hints

- When you watch a movie, “CINEMA 1” or “CINEMA 2” is recommended.
- The picture can be adjusted by pressing the PICTURE MODE button on the player as well.
- You can also select “CUSTOM PICTURE MODE” from the Control Menu (page 12).

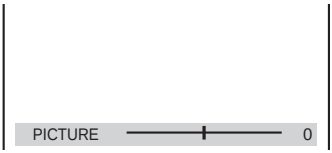
Adjusting the picture items in “MEMORY”

You can adjust each element of the picture individually.

- PICTURE: changes the contrast
- BRIGHTNESS: changes the overall brightness
- COLOR: makes the colour deeper or lighter
- HUE: changes the colour balance

1 Press PICTURE MODE repeatedly to select “MEMORY” and press ENTER.

The “PICTURE” adjustment bar appears.

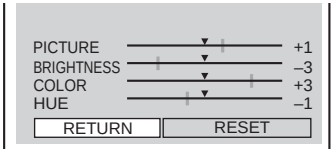


2 Press ←/→ to adjust the picture contrast, then press ENTER.

The adjustment is saved, and “BRIGHTNESS” adjustment bar appears.

3 Repeat step 2 to adjust “BRIGHTNESS,” “COLOR,” and “HUE.”

The Custom Picture Mode display appears. You can check each adjustment.



To turn off the display

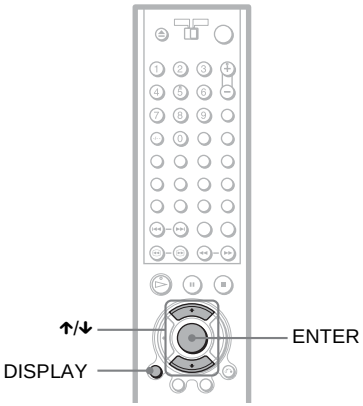
Press ↶ RETURN , or select “RETURN” in step 3 and press ENTER.

Hints

- To reset the picture items to the default values, press → after step 3 to select “RESET” and press ENTER.
- When “PLAYBACK MEMORY” in “CUSTOM SETUP” is set to “ON” the player will save a single setting for up to 40 individual discs. (This does not apply to DVD-RWs in VR mode.)
- If you do not want to save the adjustment in step 2, you can go to the next picture item by pressing ↑/↓ without saving.

Enhancing the Playback Picture (DIGITAL VIDEO ENHANCER) DVD-V DVD-RW VCD

The Digital Video Enhancer (DVE) function makes the picture appear clear and crisp by enhancing the outlines of images on your TV screen. Also, this function can soften the images on the screen.

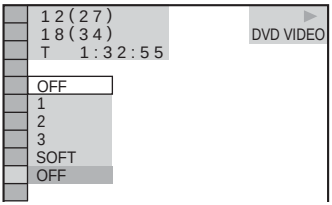


1 Press DISPLAY twice during playback.

The Control Menu appears.

2 Press ↑/↓ to select (DIGITAL VIDEO ENHANCER), then press ENTER.

The options for "DIGITAL VIDEO ENHANCER" appear.



3 Press ↑/↓ to select a level.

- 1: enhances the outline.
- 2: enhances the outline more than 1.
- 3: enhances the outline more than 2.
- SOFT: softens the image (DVD only).

4 Press ENTER.

The disc plays with the setting you selected.

To cancel the "DIGITAL VIDEO ENHANCER" setting

Select "OFF" in step 3.

To turn off the Control Menu

Press DISPLAY repeatedly until the Control Menu is turned off.

Note

Depending on the disc or the scene being played, noise found in the disc may become more apparent. If this happens, it is recommended that you use the BNR function (page 59) with the DVE function. If the condition still does not improve, reduce the Digital Video Enhancer level, or select "SOFT" (DVD only) in step 3 above.

Locking Discs (CUSTOM PARENTAL CONTROL, PARENTAL CONTROL)

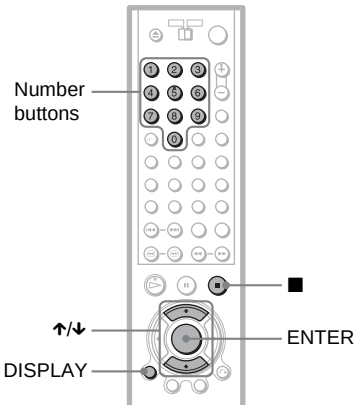
You can set two kinds of playback restrictions for the desired disc.

- Custom Parental Control
  You can set playback restrictions so that the player will not play inappropriate discs.
- Parental Control
  Playback of some DVD VIDEOs can be limited according to a predetermined level such as the age of the users. Scenes may be blocked or replaced with different scenes.

The same password is used for both Parental Control and Custom Parental Control.

Custom Parental Control DVD-V VCD SA-CD CD

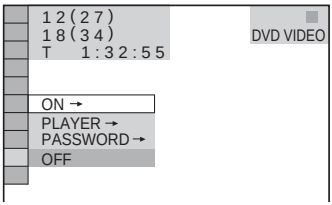
You can set the same Custom Parental Control password for up to 40 discs. When you set the 41st-disc, the first disc is cancelled.



1 Insert the disc you want to lock.
If the disc is playing, press ■ to stop playback.

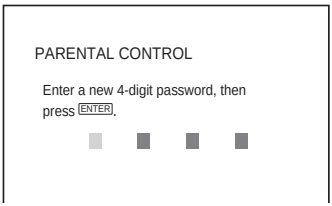
2 Press DISPLAY while the player is in stop mode.
The Control Menu appears.

3 Press ↑/↓ to select (PARENTAL CONTROL), then press ENTER.
The options for "PARENTAL CONTROL" appear.



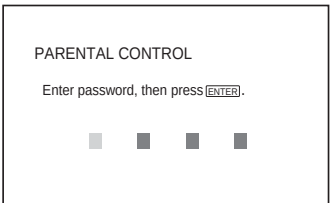
4 Press ↑/↓ to select "ON →," then press ENTER.

◆ If you have not entered a password
The display for registering a new password appears.



Enter a 4-digit password using the number buttons, then press ENTER. The display for confirming the password appears.

◆ When you have already registered a password
The display for entering the password appears.



5 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.
"Custom parental control is set." appears and then the screen returns to the Control Menu.

→continued

To turn off the Custom Parental Control function

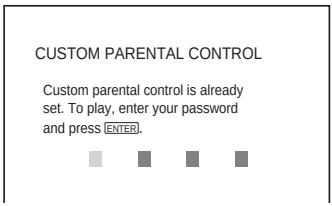
1 Follow steps 1 through 3 of "Custom Parental Control."

2 Press ↑/↓ to select "OFF →," then press ENTER.

3 Enter your 4-digit password using the number buttons, then press ENTER.

To play a disc for which Custom Parental Control is set

1 Insert the disc for which Custom Parental Control is set.
The "CUSTOM PARENTAL CONTROL" display appears.



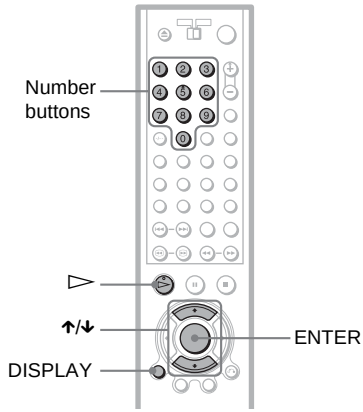
2 Enter your 4-digit password using the number buttons, then press ENTER.
The player is ready for playback.

Hint

If you forget your password, enter the 6-digit number "199703" using the number buttons when the "CUSTOM PARENTAL CONTROL" display asks you for your password, then press ENTER. The display will ask you to enter a new 4-digit password.

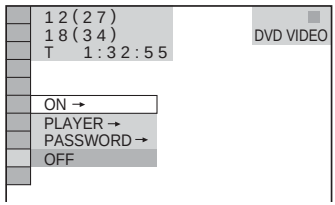
Parental Control (limited playback) DVD-V

Playback of some DVD VIDEOs can be limited according to a predetermined level such as the age of the users. The "PARENTAL CONTROL" function allows you to set a playback limitation level.



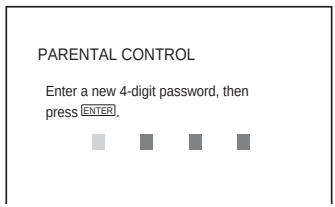
1 Press DISPLAY while the player is in stop mode.
The Control Menu appears.

2 Press ↑/↓ to select (PARENTAL CONTROL), then press ENTER.
The options for "PARENTAL CONTROL" appear.



3 Press ↑/↓ to select "PLAYER →," then press ENTER.

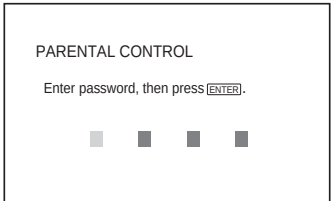
◆ **If you have not entered a password**
The display for registering a new password appears.



Enter a 4-digit password using the number buttons, then press ENTER.
The display for confirming the password appears.

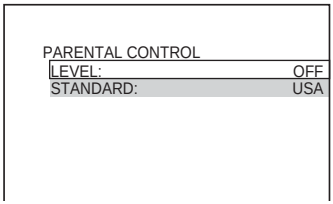
◆ When you have already registered a password

The display for entering the password appears.



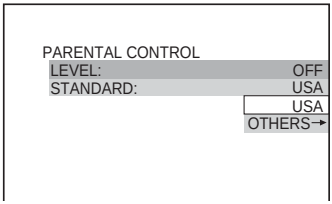
4 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.

The display for setting the playback limitation level appears.



5 Press ↑/↓ to select "STANDARD," then press ENTER.

The selection items for "STANDARD" are displayed.



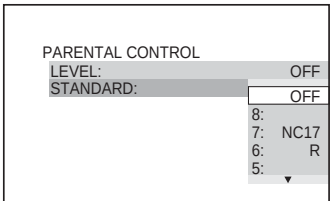
6 Press ↑/↓ to select a geographic area as the playback limitation level, then press ENTER.

The area is selected.

When you select "OTHERS →," select and enter a standard code in the table on page 66 using the number buttons.

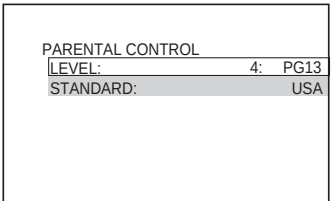
7 Press ↑/↓ to select "LEVEL," then press ENTER.

The selection items for "LEVEL" are displayed.



8 Select the level you want using ↑/↓, then press ENTER.

Parental Control setting is complete.



The lower the value, the stricter the limitation.

To turn off the Parental Control function

Set "LEVEL" to "OFF" in step 8.

To play a disc for which Parental Control is set

1 Insert the disc and press ▷.
The display for entering your password appears.

2 Enter your 4-digit password using the number buttons, then press ENTER.
The player starts playback.

Hint

If you forget your password, remove the disc and repeat steps 1 to 3 of "Parental Control (limited playback)." When you are asked to enter your password, enter "199703" using the number buttons, then press ENTER. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password, replace the disc in the player and press ▷. When the display for entering your password appears, enter your new password.

Notes

- When you play discs which do not have the Parental Control function, playback cannot be limited on this player.

• Depending on the disc, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level. If the Resume Play mode is cancelled, the level returns to the previous level.

Area Code

Standard	Code number
Argentina	2044
Australia	2047
Austria	2046
Belgium	2057
Brazil	2070
Canada	2079
Chile	2090
China	2092
Denmark	2115
Finland	2165
France	2174
Germany	2109
India	2248
Indonesia	2238
Italy	2254
Japan	2276
Korea	2304
Malaysia	2363
Mexico	2362
Netherlands	2376
New Zealand	2390
Norway	2379
Pakistan	2427
Philippines	2424
Portugal	2436
Russia	2489
Singapore	2501
Spain	2149
Sweden	2499
Switzerland	2086
Thailand	2528
United Kingdom	2184

Changing the password

1 Press DISPLAY while the player is in stop mode.

The Control Menu appears.

2 Press ↑/↓ to select (PARENTAL CONTROL), then press ENTER.

The options for “PARENTAL CONTROL” appear.

3 Press ↑/↓ to select “PASSWORD →,” then press ENTER.

The display for entering the password appears.

4 Enter your 4-digit password using the number buttons, then press ENTER.

5 Enter a new 4-digit password using the number buttons, then press ENTER.

6 To confirm your password, re-enter it using the number buttons, then press ENTER.

If you make a mistake entering your password

Press ← before you press ENTER and input the correct number.

If you make a mistake

Press ↩ RETURN.

To turn off the display

Press DISPLAY repeatedly until the display is turned off.

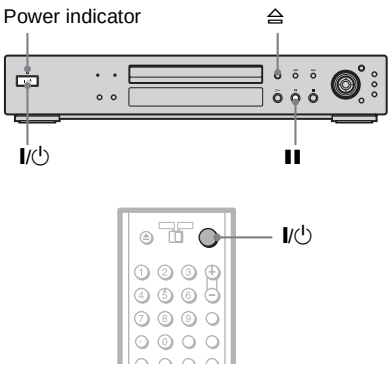
Operation Sound Effects

(Sound Feedback)

The player beeps when the following operations are performed.
The default setting of the Sound Feedback function is set to off.

Operation	Operation sound
Power is turned on	One beep
Power is turned off	Two beeps
▷ is pressed	One beep
❚❚ is pressed	Two beeps
Playback is stopped	One long beep
Operation is not possible	Three beeps

Setting Sound Feedback



1 Press I/⏻ on the player or the remote.
The power indicator lights up in green. When there is a disc in the player, press ⏏ and remove the disc. Then press ⏏ again to close the disc tray.

2 Press and hold ❚❚ on the player for more than two seconds.
You will hear one beep and the Sound Feedback function is turned on.

To turn off the Sound Feedback function
When there is no disc in the player, press and hold ❚❚ on the player for more than two seconds. You will hear two beeps and the Sound Feedback function is turned off.

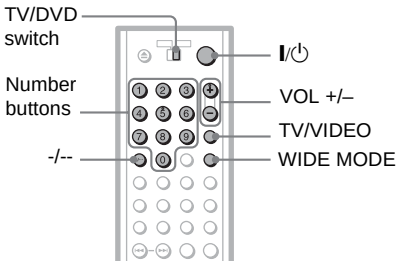
Controlling Your TV or AV Amplifier (Receiver) With the Supplied Remote

By adjusting the remote signal, you can control your TV with the supplied remote. If you connect the player to an AV amplifier (receiver), you can control the volume with the supplied remote.

Notes

- Depending on the connected unit, you may not be able to control your TV or AV amplifier (receiver) using some of the buttons below.
- If you enter a new code number, the code number previously entered will be erased.
- When you replace the batteries of the remote, the code number you have set may be reset to the default setting. Set the appropriate code number again.

Controlling TVs with the remote



1 Slide the TV/DVD switch to TV.

2 Hold down I/⏻, and enter your TV's manufacturer code (see "Code numbers of controllable TVs" below) using the number buttons.

3 Release I/⏻.

When the TV/DVD switch is set to TV, the remote controls the following:

I/⏻	Turns the TV on or off
VOL +/–	Adjusts the volume of the TV
WIDE MODE	Switches to or from the wide mode of a wide TV
Number buttons, -/--*	Selects the programme position of the TV
TV/VIDEO	Switches the TV's input source between the TV and the player The button works even if the TV/DVD switch is set to DVD.

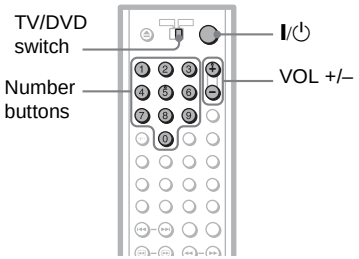
* If you use number buttons to select the TV's programme position, press -/-- followed by the number buttons for two-digit numbers.

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

Manufacture	Code number
Sony (default)	01
Grundig	11
Hitachi	24
Loewe	06, 45
Nokia	15, 16, 69
Panasonic	17, 49
Philips	06, 07, 08
Saba	12, 13
Samsung	06, 22, 23
Sanyo	25
Sharp	29
Telefunken	36
Thomson	43
Toshiba	38

Controlling the volume of your AV amplifier (receiver) with the remote



1 Slide the TV/DVD switch to DVD.

2 Hold down I/⏻, and enter your AV amplifier (receiver)'s manufacturer's code (see the table below) using the number buttons.

3 Release I/⏻.

The VOL +/– buttons control the AV amplifier's volume.

◆ If you want to control the TV's volume

Slide the TV/DVD switch to TV.

Code numbers of controllable AV amplifiers (receivers)

If more than one code number is listed, try entering them one at a time until you find the one that works with your AV amplifier (receiver).

Manufacturer	Code number
Sony	80, 88, 89, 91
Denon	84, 85, 86
Kenwood	92, 93
Onkyo	81, 82, 83
Pioneer	99
Sansui	87
Technics	97, 98
Yamaha	94, 95, 96

Hint

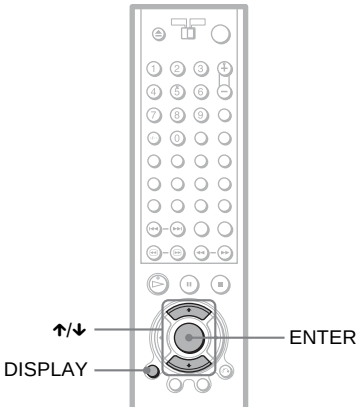
If you want to control the TV's volume even when the TV/DVD switch is set to DVD, repeat steps 1 and 2, and enter the code number 90 (default).

Using the Setup Display

By using the Setup Display, you can make various adjustments to items such as picture and sound. You can also set a language for the subtitles and the Setup Display, among other things. For details on each Setup Display item, see pages from 71 to 79.

Note

Playback settings stored in the disc take priority over the Setup Display settings and not all the functions described may work.

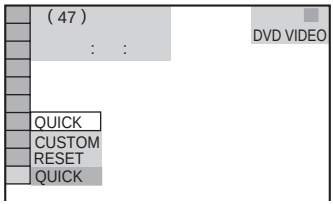


1 Press DISPLAY when the player is in stop mode.

The Control Menu appears.

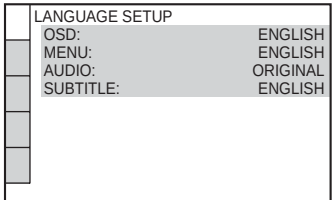
2 Press ↑/↓ to select (SETUP), then press ENTER.

The options for “SETUP” appear.



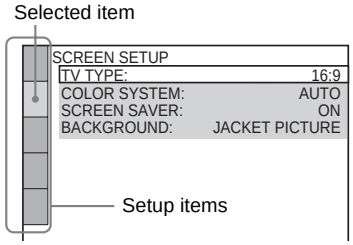
3 Press ↑/↓ to select “CUSTOM,” then press ENTER.

The Setup Display appears.



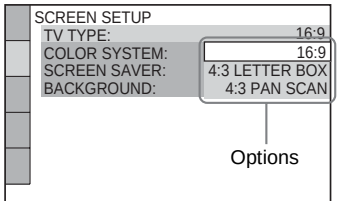
4 Press ↑/↓ to select the setup item from the displayed list: “LANGUAGE SETUP,” “SCREEN SETUP,” “CUSTOM SETUP,” “AUDIO SETUP,” or “SPEAKER SETUP.” Then press ENTER.

The Setup item is selected.
Example: “SCREEN SETUP”



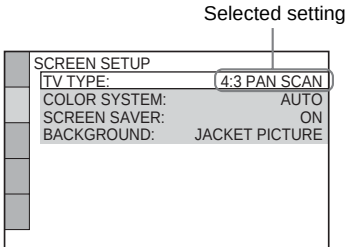
5 Select an item using ↑/↓, then press ENTER.

The options for the selected item appear.
Example: “TV TYPE”



6 Select a setting using ↑/↓, then press ENTER.

The setting is selected and setup is complete.
Example: “4:3 PAN SCAN”



To turn off the display

Press DISPLAY repeatedly until the display is turned off.

To enter the Quick Setup mode

Select “QUICK” in step 3. Follow from step 5 of the Quick Setup explanation to make basic adjustments (page 27).

To reset all the “SETUP” settings

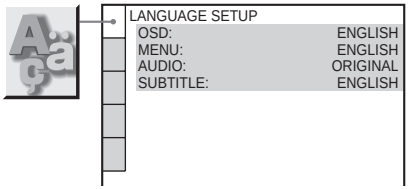
1. Select “RESET” in step 3 and press ENTER.
2. Select “YES” using ↑/↓.
   You can also quit the process and return to the Control Menu by selecting “NO” here.
3. Press ENTER.
   All the settings explained on pages 71 to 79 return to the default settings. Do not press I/⏻ while resetting the player, which takes a few seconds to complete.

Setting the Display or Sound Track Language

(LANGUAGE SETUP)

“LANGUAGE SETUP” allows you to set various languages for the on-screen display or sound track.

Select “LANGUAGE SETUP” in the Setup Display. To use the display, see “Using the Setup Display” (page 70).



◆ OSD (On-Screen Display)

Switches the display language on the screen.

◆ MENU (DVD VIDEO only)

You can select the desired language for the disc’s menu.

◆ AUDIO (DVD VIDEO only)

Switches the language of the sound track. When you select “ORIGINAL,” the language given priority in the disc is selected.

◆ SUBTITLE (DVD VIDEO only)

Switches the language of the subtitle recorded on the DVD VIDEO.
When you select “AUDIO FOLLOW,” the language for the subtitles changes according to the language you selected for the sound track.

Hint

If you select “OTHERS →” in “MENU,” “SUBTITLE,” or “AUDIO,” select and enter a language code from “Language Code List” on page 86 using the number buttons.

Note

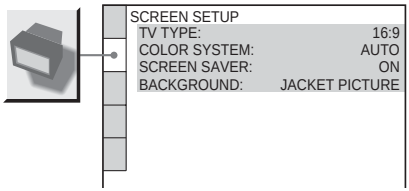
When you select a language in “MENU,” “SUBTITLE,” or “AUDIO” that is not recorded on a DVD VIDEO, one of the recorded languages will be automatically selected.

Settings for the Display

(SCREEN SETUP)

Choose settings according to the TV to be connected.

Select “SCREEN SETUP” in the Setup Display. To use the display, see “Using the Setup Display” (page 70).
The default settings are underlined.

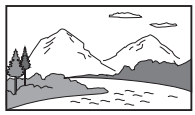


◆ TV TYPE

Selects the aspect ratio of the connected TV (4:3 standard or wide).

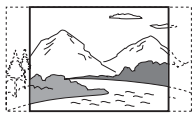
16:9	Select this when you connect a wide-screen TV or a TV with a wide mode function.
4:3 LETTER BOX	Select this when you connect a 4:3 screen TV. Displays a wide picture with bands on the upper and lower portions of the screen.
4:3 PAN SCAN	Select this when you connect a 4:3 screen TV. Automatically displays a wide picture on the entire screen and cuts off the portions that do not fit.

16:9



4:3 LETTER BOX

4:3 PAN SCAN



Note

Depending on the DVD, “4:3 LETTER BOX” may be selected automatically instead of “4:3 PAN SCAN” or vice versa.

◆ COLOR SYSTEM (VIDEO CD only)

Select the colour system when you play a VIDEO CD.

AUTO	Outputs the video signal in the system of the VIDEO CD, either PAL or NTSC. If your TV is the DUAL system, select AUTO.
PAL	Changes the video signal of an NTSC VIDEO CD and outputs it in the PAL system.
NTSC	Changes the video signal of a PAL VIDEO CD and outputs it in the NTSC system.

Notes

- You cannot change the colour system for DVDs.
- You can change the colour system of this player according o the connected TV. See page 16.

◆ SCREEN SAVER

The screen saver image appears when you leave the player in pause or stop mode for 15 minutes, or when you play back a Super Audio CD, CD, or DATA CD (MP3 audio) for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press ▷ to turn off the screen saver.

ON	Turns on the screen saver.
OFF	Turns off the screen saver.

◆ BACKGROUND

Selects the background colour or picture on the TV screen in stop mode or while playing a Super Audio CD, CD, or DATA CD (MP3 audio).

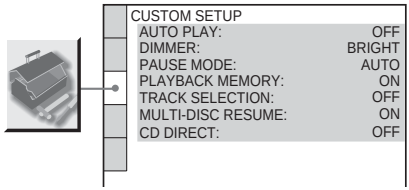
JACKET PICTURE	The jacket picture (still picture) appears, but only when the jacket picture is already recorded on the disc (CD-EXTRA, etc.). If the disc does not contain a jacket picture, the “GRAPHICS” picture appears.
GRAPHICS	A preset picture stored in the player appears.

BLUE	The background colour is blue.
BLACK	The background colour is black.

Custom Settings (CUSTOM SETUP)

Use this to set up playback related and other settings.

Select “CUSTOM SETUP” in the Setup Display. To use the display, see “Using the Setup Display” (page 70).
The default settings are underlined.



◆ AUTO PLAY

Switches the Auto Play setting on or off. This function is useful when the player is connected to a timer (not supplied).

OFF	Switches this function off.
ON	Automatically starts playback when the player is turned on.

◆ DIMMER

Adjusts the lighting of the front panel display.

BRIGHT	Makes the lighting bright.
DARK	Makes the lighting dark.
AUTO DARK	Makes the lighting dark if you do not operate the player or remote for a short while.
AUTO OFF	Turns off the lighting if you do not operate the player or remote for a short while.
OFF	Turns off the lighting.

➡continued

◆ PAUSE MODE (DVD VIDEO/DVD-RW only)

Selects the picture in pause mode.

AUTO	The picture, including subjects that move dynamically, is output with no jitter. Normally select this position.
FRAME	The picture, including subjects that do not move dynamically, is output in high resolution.

◆ PLAYBACK MEMORY (DVD VIDEO/ VIDEO CD only)

The player can store "SUBTITLE" and other settings of each disc for up to 40 discs (Playback Memory).
Set this function "ON" or "OFF."

ON	Stores the settings in memory when you eject the disc.
OFF	Does not store the settings in memory.

The following settings are stored in memory.
– ANGLE (page 58)*
– AUDIO (page 53)*
– BNR (page 59)
– DIGITAL VIDEO ENHANCER (page 62)
– SUBTITLE (page 58)*
– CUSTOM PICTURE MODE (page 60)
* DVD VIDEO only

Note

The player can store the settings of up to 40 discs. When you store the setting of disc number 41, the first disc setting is cancelled.

◆ TRACK SELECTION (DVD VIDEO only)

Gives the sound track which contains the highest number of channels priority when you play a DVD VIDEO on which multiple audio formats (PCM, MPEG audio, DTS, or Dolby Digital format) are recorded.

OFF	No priority given.
AUTO	Priority given.

Notes

- When you set the item to "AUTO," the language may change. The "TRACK SELECTION" setting has higher priority than the "AUDIO" settings in "LANGUAGE SETUP" (page 71).
- If PCM, MPEG audio, DTS, and Dolby Digital sound tracks have the same number of channels, the player selects PCM, MPEG audio, DTS, and Dolby Digital sound tracks in this order.

◆ MULTI-DISC RESUME (DVD VIDEO/ VIDEO CD only)

Switches the Multi-disc Resume setting on or off. Resume playback point can be stored in memory for up to 40 different DVD VIDEO/ VIDEO CD discs (page 35).

ON	Stores the resume settings in memory for up to 40 discs (The settings remain in memory even if you select OFF.)
OFF	Does not store the resume settings in memory. Playback restarts at the resume point only for the current disc in the player.

◆ CD DIRECT

Eliminates the use of unnecessary circuits when playing CDs. This setting will be activated when you open or close the disc tray.
This function affects the output from the following jacks:
– LINE OUT L/R (AUDIO) 1/2 jacks
– 5.1CH OUTPUT jacks

OFF	Select this when playing CD discs, including CDs with DTS tracks.
ON	Eliminates the use of unnecessary circuits needed to play CDs.

Note

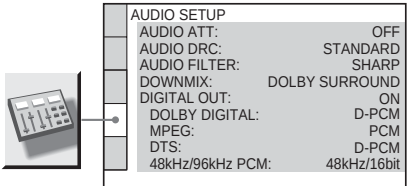
If you select "ON" when playing CDs with DTS tracks, the sound will become noisy.

Settings for the Sound

(AUDIO SETUP)

"AUDIO SETUP" allows you to set the sound according to the playback and connection conditions.

Select "AUDIO SETUP" in the Setup Display. To use the display, see "Using the Setup Display" (page 70).
The default settings are underlined.



◆ AUDIO ATT (attenuation)

If the playback sound is distorted, set this item to "ON." The player reduces the audio output level.
This function affects the output of the following jacks:
– LINE OUT L/R (AUDIO) 1/2 jacks
– 5.1CH OUTPUT jacks

OFF	Normally select this position.
ON	Select this when the playback sound from the speakers is distorted.

◆ AUDIO DRC (Dynamic Range Control) (DVD VIDEO/DVD-RW only)

Makes the sound clear when the volume is turned down when playing a DVD that conforms to "AUDIO DRC."
This function affects the output from the following jacks:
– LINE OUT L/R (AUDIO) 1/2 jacks
– 5.1CH OUTPUT jacks
– DIGITAL OUT (OPTICAL or COAXIAL) jack only when "DOLBY DIGITAL" is set to "D-PCM" (page 76).

STANDARD	Normally select this position.
TV MODE	Makes the low sounds clear even if you turn the volume down.
WIDE RANGE	Gives you the feeling of being at a live performance.

◆ AUDIO FILTER (except Super Audio CD)

Selects the digital filter to reduce noise above 22.05 kHz (Sampling frequency (Fs) of the audio source is 44.1 kHz), 24 kHz (Fs is 48 kHz), or 48 kHz (Fs is above 96 kHz).

SHARP	Provides a wide frequency range and spatial feeling.
SLOW	Provides smooth and warm sound.

Note

There may be little effect by changing the digital filter depending on discs or playback environment.

◆ DOWNMIX (DVD VIDEO/DVD-RW only)

Switches the method for mixing down to 2 channels when you play a DVD which has rear sound elements (channels) or is recorded in Dolby Digital or DTS format. For details on the rear signal components, see "Displaying the audio information of the disc" (page 54).
This function affects the output from the following jacks:
– LINE OUT L/R (AUDIO) 1/2 jacks
– DIGITAL OUT (OPTICAL or COAXIAL) jack when "DOLBY DIGITAL" and "DTS" are set to "D-PCM" (page 76).

DOLBY SURROUND	Select this when the player is connected to an audio component that conforms to Dolby Surround (Pro Logic).
NORMAL	Select this when the player is connected to an audio component that does not conform to Dolby Surround (Pro Logic).

◆ DIGITAL OUT

Select this if audio signals are to be output via the DIGITAL OUT (OPTICAL or COAXIAL) jack.

ON	Normally select this position. When you select "ON," see "Setting the digital output signal" for further settings.
OFF	The influence of the digital circuit upon the analog circuit is minimal.

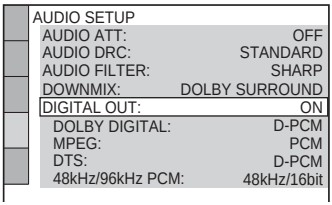
➡continued

Note

Super Audio CD audio signals are not output from a digital jack.

Setting the digital output signal

Switches the method of outputting audio signals when you connect a component such as an amplifier (receiver) or MD deck with a digital input jack.
For connection details, see page 20.
Select “DOLBY DIGITAL,” “MPEG,” “DTS,” and “48kHz/96kHz PCM” after setting “DIGITAL OUT” to “ON.”



If you connect a component that does not conform to the selected audio signal, a loud noise (or no sound) will come out from the speakers, damaging your ears or speakers.

◆ DOLBY DIGITAL (DVD VIDEO/DVD-RW only)

Selects the type of Dolby Digital signal.

D-PCM	Select this when the player is connected to an audio component without a built-in Dolby Digital decoder. You can select whether the signals conform to Dolby Surround (Pro Logic) or not by making adjustments to the “DOWNMIX” item in “AUDIO SETUP” (page 75).
DOLBY DIGITAL	Select this when the player is connected to an audio component with a built-in Dolby Digital decoder.

◆ MPEG (DVD VIDEO/DVD-RW only)

Selects the type of MPEG audio signal.

PCM	Select this when the player is connected to an audio component without a built-in MPEG decoder. If you play MPEG audio sound tracks, the player outputs stereo signals via the DIGITAL OUT (OPTICAL or COAXIAL) jack.
MPEG	Select this when the player is connected to an audio component with a built-in MPEG decoder.

◆ DTS (DVD VIDEO only)

Selects the type of DTS signal.

D-PCM	Select this when the player is connected to an audio component without a built-in DTS decoder. If you play DTS audio sound tracks, the player outputs stereo signals via the DIGITAL OUT (OPTICAL or COAXIAL) jacks.
DTS	Select this when the player is connected to an audio component with a built-in DTS decoder.

◆ 48kHz/96kHz PCM (DVD VIDEO only)

Selects the sampling frequency of the audio signal.

48kHz/16bit	The audio signals of DVD VIDEOs are always converted to 48 kHz/16 bit.
96kHz/24bit	All types of signals including 96 kHz/24 bit are output in their original format. However, if the signal is encrypted for copyright protection purposes, the signal is only output as 48 kHz/16 bit.

Notes

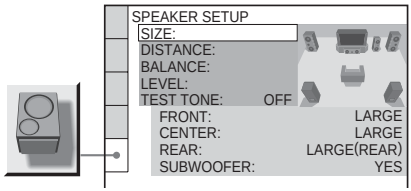
- Even if you set “48kHz/96kHz PCM” to “96kHz/24bit,” the sampling frequency is converted to 48 kHz/16 bit when a “SURROUND” mode (page 55) is selected.
- The analog audio signals from the LINE OUT L/R (AUDIO) 1/2 jacks and 5.1CH OUTPUT jacks are not affected by this setting and keep their original sampling frequency level.

Settings for the Speakers

(SPEAKER SETUP)

To obtain the best possible surround sound, set the size of the speakers you have connected and their distance from your listening position. Then use the test tone to adjust the volume and the balance of the speakers to the same level.
This setting is effective when connecting the speaker with 5.1 CH OUTPUT jacks (page 25).

Select “SPEAKER SETUP” in the Setup Display. To use the display, see “Using the Setup Display” (page 70).
The default settings are underlined.



To return to the default setting

Select the item, then press CLEAR. Note that only the “SIZE” setting does not return to the default setting.

◆ SIZE

Selects the size of the speakers.
• FRONT

LARGE	Normally select this position.
SMALL	Select this when the sound distorts or the surround effects are difficult to hear.

➡continued

• CENTER

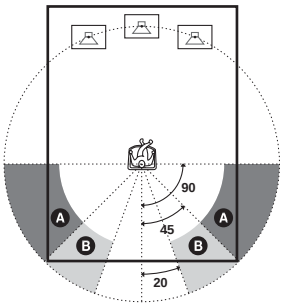
NONE	Select this if you do not connect a centre speaker.
LARGE	Normally select this position.
SMALL	Select this when the sound distorts or the surround effects are difficult to hear.

• REAR

NONE	Select this if you do not connect rear speakers.
LARGE	(REAR/SIDE): Normally select this position. Select according to the rear speaker position*.
SMALL	(REAR/SIDE): Select this when the sound distorts or the surround effects are difficult to hear. Select according to the rear speaker position*.

* Rear speaker position
Correctly specify the location of the rear speakers to enjoy the surround effect.
- Set to “SIDE,” if the location of the rear speakers corresponds to section Ⓐ below.
- Set to “REAR,” if the location of the rear speakers corresponds to section Ⓑ below.

This setting affects only “VIRTUAL REAR SHIFT,” “VIRTUAL MULTI REAR,” and “VIRTUAL MULTI DIMENSION” mode (page 55). This setting does not affect the Super Audio CD Multi audio signals.



• SUBWOOFER

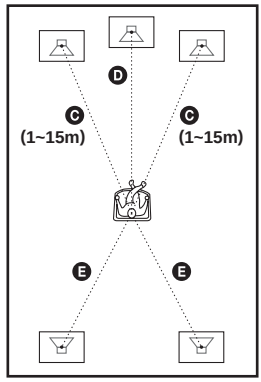
NONE	Select this if you do not connect a subwoofer.
YES	Select this if you connect a subwoofer to output the LFE (low frequency effect) signals from the subwoofer.

Notes

- The cut off frequency for the subwoofer is fixed at 120 Hz.
- If your speakers are too small to reproduce low bass frequencies, utilize a subwoofer for low frequency sound. When you set all speaker settings to “SMALL,” the bass redirection circuitry will be activated and the bass frequencies are output from the subwoofer.
- Even if there are fewer than 6 speakers connected, the player distributes the audio signal components to the front speakers.

◆ DISTANCE

Sets the distance from your listening position to the speakers.
Set the distance to your front speakers in “FRONT” first (Ⓒ). Values in “CENTER” (centre speaker) and “REAR” (rear speaker) will automatically change to the same value (Ⓓ and Ⓔ). Adjust these values to reflect the actual distance to your centre and rear speakers.



Be sure to change the value in the Setup Display when you move the speakers.
The default adjustments are in parentheses.

FRONT (3 m)	Set this between 1 and 15 metres in 0.2 metre increments.
CENTER (3 m)	Set this within –1.6 and +0.6 metres of the "FRONT" setting in 0.2 metre increments. For example, if "FRONT" is set to 6 metres, "CENTER" can be set between 4.4 and 6.6 metres.
REAR (3 m)	Set this between the "FRONT" setting and –5 metres in 0.2 metre increments. For example, if "FRONT" is set to 6 metres, "REAR" can be set between 1 and 6 metres.

Notes

- If each of the front or rear speakers are not placed at an equal distance from your listening position, set the distance according to the closest speaker.
- Do not place the rear speakers farther away from your listening position than the front speakers.
- These settings do not affect the Super Audio CD Multi audio signals.

◆ BALANCE

Varies the balance of the left and right speakers. Be sure to set "TEST TONE" to "ON" for easy adjustment.
The default adjustments are in parentheses.

FRONT (0 dB)	Set this between –6 dB [L] and +6 dB [R] (0.5 dB increments).
REAR (0 dB)	Set this between –6 dB [L] and +6 dB [R] (0.5 dB increments).

◆ LEVEL

Varies the level of each speaker. Be sure to set "TEST TONE" to "ON" for easy adjustment.
The default adjustments are in parentheses.

FRONT (0 dB)	Set this between –6 dB and 0 dB (0.5 dB increments).
CENTER (0 dB)	Set this between –12 dB and 0 dB (0.5 dB increments).
REAR (0 dB)	Set this between –12 dB and 0 dB (0.5 dB increments).
SUBWOOFER (0 dB)	Set this between –10 dB and +10 dB (0.5 dB increments).

To adjust the volume of all the speakers at one time

Use the amplifier's (receiver's) volume control.

◆ TEST TONE

The speakers will emit a test tone. Use this when you use the 5.1CH OUTPUT jacks and adjust the "BALANCE" and "LEVEL."

OFF	The test tone is not emitted from the speakers.
ON	The test tone is emitted from each speaker in sequence while adjusting balance or level.

Adjusting the speaker volume and level

1 Select "SPEAKER SETUP" in the Setup Display.

2 Select "TEST TONE" and set to "ON."
You will hear the test tone from each speaker in sequence.

3 From your listening position, select "BALANCE" or "LEVEL" and adjust the value of "BALANCE" using ←/→ and "LEVEL" using ↑/↓.
The test tone is emitted from both left and right speakers simultaneously.

4 Select "TEST TONE" and set to "OFF" to turn off the test tone.

Note

The test tone signals are not output from the digital jack.

Troubleshooting

If you experience any of the following difficulties while using the player, use this troubleshooting guide to help remedy the problem before requesting repairs. Should any problem persist, consult your nearest Sony dealer.

Power

The power is not turned on.

➡ Check that the power cord (mains lead) is connected securely.

Picture

There is no picture/picture noise appears.

➡ Re-connect the connecting cord securely.
➡ The connecting cords are damaged.
➡ Check the connection to your TV (page 18) and switch the input selector on your TV so that the signal from the player appears on the TV screen.
➡ The disc is dirty or flawed.
➡ If the picture output from your player goes through your VCR to get to your TV or if you are connected to a combination TV/VIDEO player, the copy-protection signal applied to some DVD programmes could affect picture quality. If you still experience problems even when you connect your player directly to your TV, please try connecting your player to your TV's S VIDEO input (page 18).
➡ If the colour system of your player does not match with that of your TV, change the colour system of the player. For details, see page 16. (You cannot change the colour system of the DVD disc itself.)

Even though you set the aspect ratio in "TV TYPE" of "SCREEN SETUP," the picture does not fill the screen.

➡ The aspect ratio of the disc is fixed on your DVD.

Sound

There is no sound.

➡ Re-connect the connecting cord securely.
➡ The connecting cord is damaged.
➡ The player is connected to the wrong input jack on the amplifier (receiver) (page 23, 24, 25).
➡ The amplifier (receiver) input is not correctly set.
➡ The player is in pause mode or in Slow-motion Play mode.
➡ The player is in fast forward or fast reverse mode.
➡ If the audio signal does not come through the DIGITAL OUT (OPTICAL or COAXIAL) jack, check the audio settings (page 75).
➡ Super Audio CD audio signals are not output from the digital jack.
➡ While playing a Super VCD on which the audio track 2 is not recorded, no sound will come out when you select "2:STEREO," "2:1/L," or "2:2/R."

Sound distortion occurs.

➡ Set "AUDIO ATT" in "AUDIO SETUP" to "ON" (page 75).

The sound volume is low.

➡ The sound volume is low on some DVDs. The sound volume may improve if you set "AUDIO DRC" to "TV MODE" (page 75).
➡ Set "AUDIO ATT" in "AUDIO SETUP" to "OFF" (page 75).

The surround effect is difficult to hear when you are playing a Dolby Digital, DTS, or MPEG audio sound track.

➡ Check the speaker connections and setting (page 25, 27, 76).
➡ The 5.1 channel sound is not recorded on the disc being played.

The sound comes from the centre speaker only.

➡ Depending on the disc, the sound may come from the centre speaker only.
➡ Set "SURROUND" to "OFF" (page 55).

Operation

The remote does not function.

➡ The batteries in the remote are weak.
➡ There are obstacles between the remote and the player.
➡ The distance between the remote and the player is too far.
➡ The remote is not pointed at the remote sensor on the player.

The disc does not play.

➡ The disc is turned over.
Insert the disc with the playback side facing down on the disc tray.
➡ The disc is skewed.
➡ The player cannot play certain discs (page 6).
➡ The region code on the DVD does not match the player.
➡ Moisture has condensed inside the player (page 3).
➡ The player cannot play DVD-Rs, DVD-RWs, CD-Rs, or CD-RWs that are not finalized (page 7).

The MP3 audio track cannot be played (page 40).

➡ The DATA CD is not recorded in the MP3 format that conforms to ISO9660 Level 1/ Level 2 or Joliet.
➡ The MP3 audio track does not have the extension ".MP3."
➡ The data is not formatted in MP3 even though it has the extension ".MP3."
➡ The data is not MPEG1 Audio Layer 3 data.
➡ The player cannot play audio tracks in MP3PRO format.

"Copyright lock" appears and the screen turns blue when playing a DVD-RW disc.

➡ Images taken from digital broadcasts, etc., may contain copy protection signals, such as complete copy protection signals, single copy signals, and restriction-free signals. When images that contain copy protection signals are played, a blue screen may appear instead of the images. It may take a while when looking for playable images.

The title of the MP3 audio album or track is not correctly displayed.

➡ The player can only display numbers and alphabet. Other characters are displayed as "*."

The disc does not start playing from the beginning.

➡ Programme Play, Shuffle Play, Repeat Play, or A-B Repeat Play has been selected (page 41).
➡ Resume play has taken effect (page 35).

The player starts playing the disc automatically.

➡ The disc features an auto playback function.
➡ "AUTO PLAY" in "CUSTOM SETUP" is set to "ON" (page 73).

Playback stops automatically.

➡ While playing discs with an auto pause signal, the player stops playback at the auto pause signal.

You cannot perform some functions such as Stop, Search, Slow-motion Play, Repeat Play, Shuffle Play, or Programme Play.

➡ Depending on the disc, you may not be able to do some of the operations above. See the operating manual that comes with the disc.

The language for the sound track cannot be changed.

➡ Try using the DVD's menu instead of the direct selection button on the remote (page 36).
➡ Multilingual tracks are not recorded on the DVD being played.
➡ The DVD prohibits the changing of the language for the sound track.

The subtitle language cannot be changed or turned off.

➡ Try using the DVD's menu instead of the direct selection button on the remote (page 36).
➡ Multilingual subtitles are not recorded on the DVD being played.
➡ The DVD prohibits the changing of the subtitles.

The angles cannot be changed.

➡ Try using the DVD's menu instead of the direct selection button on the remote (page 36).
➡ Multi-angles are not recorded on the DVD being played.

➡*continued*

➡ The angle can only be changed when the "ANGLE" indicator lights up on the front panel display (page 9).
➡ The DVD prohibits changing of the angles.

The player does not operate properly.

➡ When static electricity, etc., causes the player to operate abnormally, unplug the player.

Nothing is displayed on the front panel display.

➡ "DIMMER" in "CUSTOM SETUP" is set to "OFF" or "AUTO OFF." Set "DIMMER" to any setting other than "OFF" or "AUTO OFF" (page 73).

5 numbers or letters are displayed on the screen and on the front panel display.

➡ The self-diagnosis function was activated. (See the table on page 82.)

The disc tray does not open and "LOCKED" appears on the front panel display.

➡ Child Lock is set (page 32).

The disc tray does not open and "TRAY LOCKED" appears on the front panel display.

➡ Contact your Sony dealer or local authorized Sony service facility.

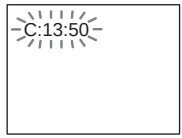
"Data error" appears on the TV screen when playing a DATA CD.

➡ The MP3 audio track you want to play is broken.
➡ The data is not MPEG1 Audio Layer 3 data.

Self-diagnosis Function

(When letters/numbers appear in the display)

When the self-diagnosis function is activated to prevent the player from malfunctioning, a five-character service number (e.g., C 13 50) with a combination of a letter and four digits appears on the screen and the front panel display. In this case, check the following table.



First three characters of the service number	Cause and/or corrective action
C 13	The disc is dirty. ➡ Clean the disc with a soft cloth (page 7).
C 31	The disc is not inserted correctly. ➡ Re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the player has performed the self-diagnosis function. ➡ Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

Glossary

Chapter (page 9)
Sections of a picture or a music feature that are smaller than titles. A title is composed of several chapters. Depending on the disc, no chapters may be recorded.

Dolby Digital (page 25, 76)
Digital audio compression technology developed by Dolby Laboratories. This technology conforms to 5.1-channel surround sound. The rear channel is stereo and there is a discrete subwoofer channel in this format. Dolby Digital provides the same 5.1 discrete channels of high quality digital audio found in Dolby Digital cinema audio systems. Good channel separation is realized because all of the channel data are recorded discretely and little deterioration is realized because all channel data processing is digital.

Dolby Surround (Pro Logic) (page 24)
Audio signal processing technology that Dolby Laboratories developed for surround sound. When the input signal contains a surround component, the Pro Logic process outputs the front, centre and rear signals. The rear channel is monaural.

DTS (page 25, 76)
Digital audio compression technology that Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround sound. The rear channel is stereo and there is a discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio.
Good channel separation is realized because all of the channel data is recorded discretely and little deterioration is realized because all channel data processing is digital.

DVD VIDEO (page 6)
A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a CD.
The data capacity of a single-layer and single-sided DVD is 4.7 GB (Giga Byte), which is 7 times that of a CD. The data capacity of a double-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD is 9.4 GB, and double-layer and double-sided DVD is 17 GB.
The picture data uses the MPEG 2 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 (average) of its original size. The DVD also uses a variable rate coding technology that changes the data to be allocated according to the status of the picture. Audio information is recorded in a multi-channel format, such as Dolby Digital, allowing you to enjoy a more real audio presence.
Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

DVD-RW (page 6)
A DVD-RW is a recordable and rewritable disc with the same size as the DVD VIDEO. The DVD-RW can be recorded in two different modes: VR mode and Video mode. VR (Video Recording) mode enables various programming and editing functions, some of which are limited in the case of Video mode. Video mode complies with DVD VIDEO format and can be played on other DVD players while a DVD-RW recorded in VR mode can only be played on DVD-RW compliant players. The “DVD-RW” appearing in this manual, and the on-screen displays refer to DVD-RWs in VR mode.

Index (CD)/Video Index (VIDEO CD) (page 9)
A number that divides a track into sections to easily locate the point you want on a CD or VIDEO CD. Depending on the disc, no index may be recorded.

➡continued

MPEG audio (page 25, 76)

International standard coding system used to compress audio digital signals authorized by ISO/IEC. MPEG 1 conforms to up to 2-channel stereo. MPEG 2, used on DVDs, conforms to up to 7.1-channel surround.

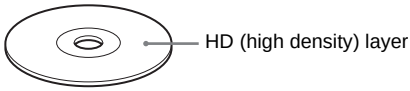
Scene (page 9)

On a VIDEO CD with PBC (playback control) functions, the menu screens, moving pictures and still pictures are divided into sections called “scenes.”

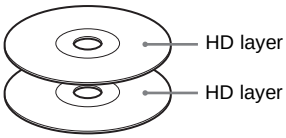
Super Audio CD (page 6)

A Super Audio CD disc can reproduce sounds that are extremely faithful to the original sound by use of DSD (Direct Stream Digital) technology. This technology utilizes a sampling frequency of 2.8224 MHz, which is 64 times that of a conventional CD, and 1-bit quantization that enables the disc to hold 4 times the amount of information that a standard PCM format CD can hold. Super Audio CDs are divided into the following types.

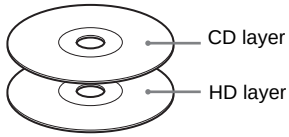
- Super Audio CD (single layer disc)
  This disc consists of a single HD layer*.
  *High density signal layer for the Super Audio CD



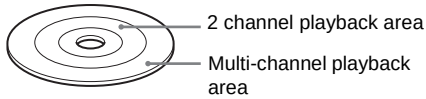
- Super Audio CD (dual layer disc)
  This disc consists of dual HD layers and is capable of extended play over long periods. Also, as the dual layer disc consists of dual HD layers on one side only, you do not have to turn the disc over during playback.



- Super Audio CD + CD (Hybrid disc)
  This disc consists of an HD layer and a CD layer. Also, as the dual layers are on one side only, you do not have to turn the disc over during playback. You can play the CD layer using a conventional CD player.



- 2 channel + Multi-channel Super Audio CD
  This disc consists of the 2 channel playback area and the multi-channel playback area.



Title (page 9)

The longest section of a picture or music feature on a DVD, movie, etc., in video software, or the entire album in audio software.

Track (page 9)

Sections of a picture or a music feature on a CD or VIDEO CD (the length of a song).

Specifications

System

Laser: Semiconductor laser
Signal format system: PAL/NTSC
(See page 16 to switch)

Audio characteristics

Frequency response: DVD VIDEO (PCM 96 kHz): 2 Hz to 44 kHz (44 kHz: –2 dB ±1 dB)/Super Audio CD: 2 Hz to 100 kHz (50 kHz: –3 dB ±1 dB)/CD: 2 Hz to 20 kHz (±0.5 dB)
Signal-to-noise ratio (S/N ratio): 115 dB (LINE OUT L/R (AUDIO) 1/2 jacks only)
Harmonic distortion: 0.003 %
Dynamic range: DVD VIDEO/Super Audio CD: 103 dB/CD: 99 dB
Wow and flutter: Less than detected value (±0.001% W PEAK)

Outputs

(**Jack name:** Jack type/Output level/Load impedance)
LINE OUT (AUDIO) 1/2: Phono jack/ 2 Vrms/10 kilohms
DIGITAL OUT (OPTICAL): Optical output jack/–18 dBm (wave length: 660 nm)
DIGITAL OUT (COAXIAL): Phono jack/ 0.5 Vp-p/75 ohms
5.1CH OUTPUT: Phono jack/2 Vrms/ 10 kilohms
LINE OUT (VIDEO) 1/2: Phono jack/ 1.0 Vp-p/75 ohms
S VIDEO OUT 1/2: 4-pin mini DIN/Y: 1.0 Vp-p, C: 0.3 Vp-p (PAL), 0.286 Vp-p (NTSC)/75 ohms
COMPONENT VIDEO OUT (Y, CB, CR): Phono jack/Y: 1.0 Vp-p, CB, CR: 0.7 Vp-p/75 ohms

General

Power requirements: 220-240 V AC, 50/60 Hz
Power consumption: 16 W
Dimensions (approx.): 430 × 77 × 257 mm (width/height/depth) incl. projecting parts
Mass (approx.): 2.8 kg
Operating temperature: 5 °C to 35 °C
Operating humidity: 25 % to 80 %

Supplied accessories

See page 15.

Specifications and design are subject to change without notice.

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Language Code List

For details, see pages 53, 58, 71.
The language spellings conform to the ISO 639: 1988 (E/F) standard.

Code	Language	Code	Language	Code	Language	Code	Language
1027	Afar	1183	Irish	1347	Maori	1507	Samoan
1028	Abkhazian	1186	Scots Gaelic	1349	Macedonian	1508	Shona
1032	Afrikaans	1194	Galician	1350	Malayalam	1509	Somali
1039	Amharic	1196	Guarani	1352	Mongolian	1511	Albanian
1044	Arabic	1203	Gujarati	1353	Moldavian	1512	Serbian
1045	Assamese	1209	Hausa	1356	Marathi	1513	Siswati
1051	Aymara	1217	Hindi	1357	Malay	1514	Sesotho
1052	Azerbaijani	1226	Croatian	1358	Maltese	1515	Sundanese
1053	Bashkir	1229	Hungarian	1363	Burmese	1516	Swedish
1057	Byelorussian	1233	Armenian	1365	Nauru	1517	Swahili
1059	Bulgarian	1235	Interlingua	1369	Nepali	1521	Tamil
1060	Bihari	1239	Interlingue	1376	Dutch	1525	Telugu
1061	Bislama	1245	Inupiak	1379	Norwegian	1527	Tajik
1066	Bengali; Bangla	1248	Indonesian	1393	Occitan	1528	Thai
		1253	Icelandic	1403	(Afan)Oromo	1529	Tigrinya
1067	Tibetan	1254	Italian	1408	Oriya	1531	Turkmen
1070	Breton	1257	Hebrew	1417	Punjabi	1532	Tagalog
1079	Catalan	1261	Japanese	1428	Polish	1534	Setswana
1093	Corsican	1269	Yiddish	1435	Pashto; Pushto	1535	Tonga
1097	Czech	1283	Javanese			1538	Turkish
1103	Welsh	1287	Georgian	1436	Portuguese	1539	Tsonga
1105	Danish	1297	Kazakh	1463	Quechua	1540	Tatar
1109	German	1298	Greenlandic	1481	Rhaeto-Romance	1543	Twi
1130	Bhutani	1299	Cambodian			1557	Ukrainian
1142	Greek	1300	Kannada	1482	Kirundi	1564	Urdu
1144	English	1301	Korean	1483	Romanian	1572	Uzbek
1145	Esperanto	1305	Kashmiri	1489	Russian	1581	Vietnamese
1149	Spanish	1307	Kurdish	1491	Kinyarwanda	1587	Volapük
1150	Estonian	1311	Kirghiz	1495	Sanskrit	1613	Wolof
1151	Basque	1313	Latin	1498	Sindhi	1632	Xhosa
1157	Persian	1326	Lingala	1501	Sangho	1665	Yoruba
1165	Finnish	1327	Laothian	1502	Serbo-Croatian	1684	Chinese
1166	Fiji	1332	Lithuanian			1697	Zulu
1171	Faroese	1334	Latvian; Lettish	1503	Singhalese		
1174	French			1505	Slovak		
1181	Frisian	1345	Malagasy	1506	Slovenian	1703	Not specified

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